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THE JOURNAL

OF THE

INDIANA STATE MEDICAL ASSOCIATION

DEVOTED TO THE INTERESTS OF THE MEDICAL PROFESSION OF INDIANA

ISSUED MONTHLY

UNDER DIRECTION OF THE COUNCIL

ALBERT E. BULSON, JR., B.S., M.D.,
Editor and Manager

BEN PERLEY WEAVER, B.S., M.D.,
Ass't Editor

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SPECIAL ARTICLES

PROGRESS IN SURGERY DURING THE YEAR 1911

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INDIANAPOLIS

The literature of general surgery is so vast that no one can make an all-inclusive review of it. We must, therefore, at the outset limit ourselves to a review of such articles as seem to us to illustrate best the general lines of progress in the various branches of the science.

SCIENTIFIC DISCOVERIES

Progress in practical surgery is largely dependent on advances of knowledge in a number of other sciences — physiology, pathology, anatomy, chemistry and even physics. Hence it is proper that we begin this review with an account of certain purely scientific discoveries made during the year. These, it is true, have as yet had no practical application in surgery, but sooner or later they are sure to influence it.

The discovery by Rous,[1] working at the Rockefeller Institute, that a form of chicken sarcoma can be transmitted by a virus which has passed through a Berkefeld filter, is probably the greatest advance made in the study of malignant growths since the early days of cellular pathology. Rous suggests two possibilities as to the nature of the agent with which he has to deal: (1) that it is an ultra-microscopic organism, or (2) that it is a "chemical stimulant elaborated by the neoplastic cells." He does not, however, commit himself to either hypothesis. His work has been reviewed, and his results accepted by the most eminent pathologists in the country. Whether similar results can be obtained with the products of other forms of malignant growth remains to be seen. Rous' work raises the hope that the cause of neoplastic growths, and even a cure for them may at last be found.

A discovery of an importance perhaps equal to this of Rous has been made by Webb and Williams of Colorado Springs.[2] These investigators, employing a special technic by which they are able to isolate small numbers of living tubercle bacilli, have succeeded in immunizing monkeys against tuberculosis. The work is too recent to enable them to state whether or not the immunity so obtained is permanent. They have, however, already attempted to immunize the children of tuberculous parents, and their results in this attempt will be awaited with great interest. It is needless to point out what a change in the surgery of tubercular lesions may be brought about by work of this kind.

Of direct importance is the work of Professor Henderson of the Yale Medical School[3] on the cause of death in cases where the fatality is attributed to a so-called status lymphaticus. Henderson was able to cause the death of perfectly normal animals, in a manner similar in all respects to that in the cases in question, by a process which he describes as bad anesthesia. He explains these fatalities by his well-known acapnial theory of surgical shock. He warns the surgeon against allowing his patient to undergo a long stage of excitement during the induction of anesthesia, and against an irregular narcosis, during which the patient is allowed frequently to "come out." The prolonged respiratory excitement so produced decreases below normal the amount of carbon dioxid in the patient's blood and thereby makes him liable to a sudden failure of the respiration and circulation.

1. Jour. Exp. Med., xiii, No. 4, p. 397.
2. Jour. Am. Med. Assn., lvii, 1431.
3. Surg., Gynec. and Obst., August, 1911.

A prominent German surgeon recently wrote that Carrel's results in organ transplantation approach the limits of what is possible in this kind of work. Carrel has reported[4] the ultimate result of a double nephrectomy and the replantation of one kidney. The dog after this operation lived in excellent health for two and one-half years and died of an intercurrent disease. The kidney at autopsy was found to be normal.

From this and similar experiments it has been widely assumed that we are soon to see organ transplantations successfully carried out in man, and transplantations of human organs have been attempted. There are three great obstacles, however, to the success of such measures in the human subject: 1. The condition of the patient who would require to have an organ removed and replaced by a new one. Such patients are usually weakened by disease — may have tuberculosis or a pyogenic infection and are not to be compared to healthy laboratory animals. 2. The difficulty of getting normal organs for transplantation. 3. The fact that tissues from another subject do not always "take" when transplanted. This is true even of the skin, and is much more so for the more highly specialized tissues. Still, it is impossible to predict what may be made possible by new discoveries.

A number of investigators at the Rockefeller Institute are growing various normal and pathologic tissues *in vitro*. Carrel has described a method for keeping such cultures alive for long periods of time. Perhaps the most interesting of these cultures are those of malignant growths. In them the manner of division of the cells, their structure and the conditions which favor or hinder their growth may be studied. This work has already begun to throw light on the question of immunity to cancer and sarcoma.

CEREBROSPINAL SURGERY

No field of surgery requires a more special study than this, both with regard to problems of diagnosis and to problems of operative technic. The most important advances in cerebrospinal surgery made during 1911 have had to deal with the functions and diseases of the pituitary body, and with the diagnosis and removal of tumors of the brain and cord.

At the Los Angeles meeting of the American Medical Association there was a discussion of the question of operation in cases of fracture of the spine. The men of most experience advised conservatism with regard to surgical interference. It was pointed out that a laminectomy may easily increase the damage already done to the cord by the fracture.

Allen[5] reports some interesting experimental results with regard to lesions of the spinal cord. He found that "median longitudinal sections of the cord of the dog is provocative of no symptom of note." On the assumption that much of the damage in cord injuries is caused by hemorrhage into the cord and by edema of its tissues, Allen advises in such cases that a laminectomy be done and a longitudinal incision into the cord be made, for purposes of drainage.

In an article on the "Control of Bleeding in Operations for Brain Tumors,"[6] Cushing describes the various "tricks" which contribute to the success of these difficult procedures. He points out that the control of hemorrhage by means of the clamp or gauze sponge is out of the question in operations on the brain. The methods which he recommends are the following: 1. Careful slow operating. 2. Postponement of the final stage of the operation if there has been an excessive loss of blood in making the scalp incision or in cutting through the bone, or if the patient takes the anesthetic badly. 3. The use of pads of cotton, dry or wet with hot salt solution, to control the oozing.* 4. The use of bits of muscle or of blood-clot to promote coagulation of the blood. 5. The use of a special clip of silver wire to close vessels inaccessible to the ligature. 6. The prevention of postoperative hemorrhage by keeping the patient quiet after operation and by taking every possible precaution against his vomiting.

SURGERY OF THE THYROID GLAND

During the year the vast literature on the functions and diseases of the thyroid has been increased by numerous articles. I shall review only two of these contributions, having selected these because they have a direct bearing on the practical surgery of the organ.

Chas. Mayo, in an article on "Lingual, Sublingual and Other Forms of Aberrant Thyroids,"[7] discusses the embryology of the thyroid gland and explains the formation of aberrant tumors of thyroid tissue. In favor of the view that the bulk if not all of the gland is developed from the pharyngeal anlage, he makes the point that approximately one case out of every seven operated on for a lingual thyroid develops myxedema. Such would not be the case if portions of the gland were developed in the neck in the fourth branchial

4. Jour Exper. Med., August, 1911.

5. Jour. Am. Med. Assn., lvii, 878.
6. Ann. Surg., July, 1911.
7. Jour. Am. Med. Assn., lvii, 784.
* To prevent the loss of such pads they may be tied to a thread which hangs out of the wound.

grooves. A careful examination of the neck should be made before excising a lingual thyroid, and the latter should not be entirely removed if no palpable thyroid can be found. Mayo advises removal of lingual thyroids through the mouth, and control of the hemorrhage by deep sutures. In case the tumor is very large, preliminary laryngotomy and ligation of both lingual arteries may be necessary.

A very valuable communication is that of Porter[8] on the treatment of exophthalmic goiter by the use of hot-water injections into the gland. This treatment, which brings about a localized destruction of gland tissue, is advised by Porter as a more rational and less hazardous procedure than ligation of the vessels. He recommends it for the very mild and the very severe cases, claiming that the former can be cured thereby, and the latter made safe operative risks. The injections must be made inside the thyroid capsule and away from the region of the parathyroids and recurrent laryngeal nerves.

ABDOMINAL SURGERY

Finsterer,[9] in an article on the diagnosis of injuries of the liver, reports a sign which he claims has not heretofore been brought out in the literature. This is a marked slowing of the pulse, due to absorption of bile. The beats may be as few as 50 to the minute. This sign, if positive, is of great diagnostic importance; if negative, however, it does not exclude a wound of the liver, since the action of the bile in slowing the pulse may be overcome by that of the hemorrhage in accelerating it.

W. J. Mayo[10] reviews 1,000 cases in which at operation a palpable ulcer of the stomach or duodenum was found. Three-fourths of the patients were males. Two-thirds of the ulcers were found in the duodenum and one-third in the stomach, and 3 per cent. of the patients had ulcers in both stomach and duodenum. These findings overthrow the old ideas that peptic ulcers are usually multiple, that they are more common in women than in men, and that they are more frequently found in the stomach than in the doudenum.

Stasis of food, as shown by the *x*-ray or by finding particles of undigested food in the stomach eight to twelve hours after their ingestion, is the most reliable diagnostic sign of a chronic peptic ulcer; hyperacidity and hemorrhage may be lacking and are not reliable diagnostic signs. The pain is more or less typical and comes on in two or three hours after eating.

The treatment is surgical. It is very satisfactory, Mayo reporting 98 per cent. of cures or of great improvement. The mortality of the operation is now well under 2 per cent. Excision of the ulcer or infolding of the same is advised whenever possible, to guard against a possible carcinomatous change.

"The movable cecum" as a clinical entity has been discussed by a number of writers. Wilms[11] reviews the whole matter. He states that the symptoms due to a dilated and atonic, or to a contracted cecum, have heretofore been attributed to chronic appendicitis. The latter symptom-complex, however, is both clinically and pathologically distinct from the condition in question. The symptoms due to these abnormalities of the cecum are: (1) occasional attack os fcolic; (2) gurgling or splashing elicited in the right iliac fossa by palpation; (3) with a contracted cecum, a firm body in the region of McBurney's point; (4) on *x*-ray examination after the patient has been given bismuth paste, a stagnation of the bowel contents in the cecum for from twelve to twenty-four hours, and perhaps also an abnormal mobility of the cecum, which may be found in the true pelvis, or even near the mid-line.

These cases, Wilms states, cannot be cured by a simple appendectomy. He advises cecumpexy as the best treatment.

Richardson[12] has an important article on the etiology and treatment of intestinal adhesions. He reviews the causes therefor and the various methods of treatment which have been advised. He suggests a device for covering denuded bowel surfaces by the use of the mesentery. The technic is as follows: In cases in which there is considerable fat between the leaves of the mesentery, an incision is made through one leaf of the same, parallel to its attachment to the gut and about 1 cm. distant therefrom. The leaf farther from the bowel is then drawn over the raw surface and stitched in place. In cases without fat in the mesentery both leaves of the mesentery are plicated over the raw area.

König[13] has an article on the use of free flaps of periosteum (and fascia?) to reinforce the wounds left after suture of defects in hollow organs, weak hernia wounds, etc. If the flaps are secured snugly in place, and in good contact with neighboring vascular tissues, they heal remarkably well. There is certainly a great field, as yet hardly touched, in the use of transplanted flaps of fascia, tendons, etc., for plastic work in surgery.

8. Jour. Am. Med. Assn., lvii, 120.
9. Arch. f. klin. Chir., 1911, xcv, 2.
10. Ann. Surg., September, 1911.
11. Arch. f. klin. Chir., 1911, xcv, No. 3.
12. Bull. Johns Hopkins Hosp., August, 1911.
13. Arch. f. klin. Chir 1911, xcv, 2.

The etiology of certain rectal strictures has long been in dispute. They have generally been regarded as being of syphilitic origin. Exner[14] reports eight cases of this kind, all in women. Only two of the patients had had syphilis. Exner thinks that these inflammatory strictures are usually of gonorrheal origin.

Murphy and Vincent[15] have apparently settled the much-discussed question of the cause of the acute symptoms of low intestinal obstruction. Their experimental work is most thorough and convincing. They have shown that the chief symptoms which ensue after obstruction are not due to peritonitis nor to nervous "shock," but to the absorption of toxins from the loop of obstructed gut. They found that the most rapidly fatal form of obstruction is that produced by ligation of the veins draining a loop of bowel, and explain this by the fact that the lymphatic absorption under these conditions is at a maximum. Experimenting with the fluid in obstructed loops of bowel they found that when this is injected into normal animals the typical collapse symptoms of intestinal obstruction are produced. As to the nature of the toxin, they conclude that it is bacterial in origin. An important observation is that "it is not absorbed to any degree through normal mucous membrane." For this reason the authors regard an enterostomy in treatment of intestinal obstruction as futile, and advise resection of the necrotic portion of gut. They probably, however, would advise that an enterostomy be done in desperate cases, where there is not time to resect, or at least to do an intestinal anastomosis.

GENITO-URINARY SURGERY

Young, Judd and Freyer have published statistics in the course of the year on their results with prostatectomy. The immediate mortality reported is as follows: Young, with 450 cases of perineal prostatectomy for benign hypertrophy, lost seventeen cases (3.77 per cent.). Judd, with 542 cases, reports twenty-nine deaths occurring within two months after operation (5.3 per cent.). In 323 of Judd's cases the perineal operation was done. Freyer, in his last 200 cases of suprapubic prostatectomy, lost nine cases (4.5 per cent.).[16]

Young and Judd both advise careful preliminary preparation of the patient for several weeks before operation by drainage of the bladder and forcing of liquids. Young recommends highly the phenosulphonephthalein test of Geraghty and Rountree for determining the functional activity of the kidneys. All three authors are agreed that postoperative uremia is the chief source of danger. The late results of Judd and Young are excellent.

Young reports excellent results in a series of twenty cases in which he removed enlarged median prostatic bars by means of an ingenious punch-like instrument inserted through the urethra.

Barth[17] states that atrophy of the prostate can cause much the same symptoms as enlargement thereof. He reports two cases relieved by prostatectomy.

Tandler and Zuckerkandl[18] claim that benign prostatic hypertrophy is a true tumor of the middle lobe of the gland. This tumor is shelled out at operation, and the so-called capsule left is not a true capsule at all, but consists of the compressed glandular tissue around the tumor. This conclusion is surely not true for all cases, since hypertrophy of the lateral lobes is certainly met with.

Cullen and Derge[19] report a research on the use of a silver wire in laying open the kidney. The wire is passed through the organ on a blunt needle, and is used to saw through the parenchyma from within outward. The wire, so used, pushes aside the vessels without tearing them. The authors claim that the bleeding is very much less than occurs when the kidney is split with the knife, and that postoperative hemorrhage never occurs.

A great number of articles on the use and results of salvarsan in syphilis have appeared during the year, but final conclusions as to the permanency of its effects, or as to how far it can replace mercury and iodids, have apparently not yet been reached.

The specific organism of syphilis has at last been grown in pure culture. The honor of this achievement belongs to Noguchi of the Rockefeller Institute.[20] He used serum-water of the sheep, horse or rabbit, to which a bit of tissue—kidney or testicle—has been added. This medium is inoculated with the *Treponema pallidum* by placing in it a piece of syphilitic testicle from a rabbit. The medium is covered with a layer of paraffin oil. The organisms so grown have been used to communicate the disease to other animals. This work settles once for all the question of the etiology of syphilis.

14. Deutsch. Ztschr. f. Chir., 1911, cix, No. 3.
15. Bost. Med. and Surg. Jour., clxv, No. 18.
16. Young: Surg., Gynec. and Obst., September, 1911. Judd: Jour. Am. Med. Assn., August, 1911. Freyer: Lancet, April 8, 1911.
17. Arch. f. klin. Chir., xcv, No. 3, 1911.
18. Folia Urologica, v, 9, 1911.
19. Surg., Gynec. and Obst., xiii, 365.
20. Jour. Am. Med. Assn., lvii, 106.

THE OPERATIVE TREATMENT OF FRACTURES

At the meeting of the American Medical Association in Los Angeles last summer, papers were presented by Bartlett and Martin on this subject, which excited much interest and called forth a long discussion.

I shall endeavor to summarize the conclusions brought out in these papers and in the discussion which followed their presentation. It was the general opinion that no fractures should be operated on which can be successfully treated by other means, and that no one not thoroughly familiar with the technic of plating fractured bones and fully provided with all necessary appliances, should attempt the operation. Furthermore, it was agreed that after operation it is necessary to apply an external support—plaster cast or splint—to the limb, to prevent leverage on the plate. Many valuable technical suggestions were made by Bartlett and Martin, and their papers[21] are well worth a careful reading.

ANESTHESIA

Surgeons are awakening more and more to the importance of the anesthesia as a factor in the success or failure of an operation. An entire session of the meeting of the American Surgical Association at Denver was given over to the consideration of this important subject. Here Bevan advised ether given by the open method as the form of anesthesia to be used for all ordinary cases, and N_2O with oxygen for handicapped patients. Crile favored the latter form of anesthesia for the vigorous as well as for the weak patients, arguing that if it be less injurious than any other form of narcosis for the weak, the same must be true of it also for the strong.

At this meeting a paper by Meltzer was read,[22] which discussed the merits of his method of "insufflation" anesthesia. In carrying out this method a tube is placed through the glottis and the vapor of ether blown into the lungs. The results are said to be very satisfactory.

The use of chloroform, except in rare cases, was pretty generally condemned. This is not so much on account of the danger to which this anesthetic subjects the patient during the actual time of the operation, as because of the intensity of its toxic effects on the tissues, and especially on the liver, kidneys and blood.

Spinal anesthesia is now regarded with disfavor by the best authorities. Improvements in the technic of giving nitrous oxid with oxygen have rendered it largely unnecessary in the particular class of cases for which it was advocated. It has certain unavoidable disadvantages and dangers which will probably prevent its ever being generally used.

Kümmell[23] reports ninety personal cases in which he has used intravenous ether anesthesia. He recommends this chiefly for use during operations on the head and neck, and for very weak patients. The latter may be given salt solution intravenously before the operation, and with this the ether solution may be allowed to run in. Anesthesia is quickly and quietly established. Kümmell attributes a stimulant action to the ether so given. The chief theoretical danger of the method is that of embolism, but Kümmell has not had this occur in any of his cases.

Arnd[24] has an article on rectal anesthesia by means of a 5 per cent. ether solution. The technic is as follows: Half an hour before operation the patient is given a hypodermic injection of scopolamin and morphia. One liter of ether solution is allowed to run into the rectum. The odor of the ether appears on the patient's breath in a few moments, and anesthesia is quickly established. At the close of the operation the rectum is thoroughly evacuated.

The methods of Kümmell and Arnd are as yet purely in the experimental stage of development. It seems probable that we are already possessed of safer and more satisfactory forms of anesthesia.

It is of interest to note that a movement is on foot to start a special section for anesthesia in the American Medical Association.

1636 North Pennsylvania Street.

21. Jour. Am. Med. Assn., lvii.
22. Jour. Am. Med. Assn., lvii, 521.
23. Arch. f. klin. Chir., xcv, No. 1, 1911.
24. Arch. f. klin. Chir., xcv, No. 1, 1911.

THE PROGRESS OF OPHTHALMOLOGY AND OTO-LARYNGOLOGY DURING THE YEAR 1911

George F. Keiper, M.D.
LAFAYETTE, IND.

The record of progress is the record of achievement. This is true in ophthalmology and otolaryngology as in affairs in general. In order to measure the length, breadth and height of this progress it is necessary to take a survey of the literature of these particular lines of work, for therein we find the record of the achievements of the men and women who are advancing the standards.

The literary output for 1911 was very vast. On the eye alone approximately 2,200 articles

appeared in the journals of the world. If we allow six pages for each article, we have a total of 13,200 pages. Then thirty-nine transactions of various ophthalmologic societies appeared, averaging about 150 pages each, or a total of 5,850 pages. The books of the year will approximate eighty-five. These will average 320 pages each or a total of 27,330 pages. The grand total for the eye is therefore 46,380 pages.

On the ear, nose and throat, approximately 3,000 articles have appeared. Allow six pages to each and we have a total of 18,000. The books are approximately thirty-three and each of these averages 300 pages, a total of 9,900 pages. The transactions will add about 3,500 pages more, or a total for the ear, nose and throat of 31,400 pages.

The grand total for the eye, ear, nose and throat will be 77,500 pages. Surely this fact ought to make all engaged in these lines of endeavor profoundly respect them. Is it any wonder then that the conscientious practitioner in these lines of work is compelled by this force of circumstance to limit his practice thus. Of course no one man can read all that is published, and practice medicine. If it were possible he must needs be a universal linguist, able to read every language, and at the rate of 200 pages per day.

It is manifestly impossible in the space alloted, for me to attempt anything but a very cursory review, and here and there touch a mountain peak of achievement as we attempt a flight over this vast literature to get a glance thereat. Edward Jackson, in his review of ophthalmology for the year 1910 takes 455 pages, and Max Goldstein in his review of oto-laryngology takes 411 pages. For 1911 they can take no less. What can we hope to do in these few pages?

Moreover, it is realized that reviews such as these are always open to criticism, more or less, because what may seem important to one will not seem so to others. However, we will proceed to notice in order of importance the principal achievements of the year.

OPHTHALMOLOGY

Cataract.—The subject holding the attention nowadays is the so-called Smith Indian operation for cataract. In this operation the cataract is removed in its capsule, according to the method of Colonel Smith, now of Amristar. Smith is a general surgeon in the Indian Medical Service. To date he has performed the vast number of 27,000 cataract operations. No one has ever equaled or approached that number. Considerable controversy has been stirred up the world over as to the merits of the operation. It reminds one of what we read of the controversy that waged over Daviel and his operation of removal of the cataract as practiced up to the work of Smith. Why this opposition should exist is inconceivable. Suffice it to say that the number of those doing it in this country is increasing. At the November meeting of the Chicago Ophthalmological Society Dr. R. J. Tivnen reported the results of a collective investigation with reference to this phase of the subject. As a result he found that thirty-nine oculists are performing the operation according to the technic of Smith. This is quite an increase since Greene of Dayton, Ohio, proposed it at the St. Clair meeting of the American Academy of Ophthalmology and Oto-Laryngology five years ago.

While conservatism is always in order, no one should be so enamored of the old as to refuse to even consider the possibility of there being something better. We must admire the enterprise of those Americans who have traveled around the world to learn the steps of the operation from the master hand of Smith and their kindness and generosity in teaching the results of their experience to others.

Donavan of Butte, Mont., before the last session of the Section of Ophthalmology, American Medical Association, advocates the immediate removal of the lens when injured producing cataract.

Homer Smith (September *Journal Ophthalmology and Oto-Laryngology*) proposes a new method for the extraction of immature cataract. Between the capsulotomy and extraction six hours elapse. In the meantime the aqueous humor gets between the capsule and lens substance rendering the removal of the latter easy and complete.

Glaucoma.—No less interest is being taken in the latest theory as to the cause of simple glaucoma, and the treatment thereof. Fischer has in a most convincing fashion demonstrated the disease to be due to an edema of the eye-ball. Based on his experiments, the subconjunctival injections of a 5 per cent. solution of sodium citrate produce reduction of tension, with clearing of the corneal cloudiness. The reader is advised to read Fischer's book on "Edema" to get a fair idea of what he considers edema in general to be. However, it will not be understood that iridectomy as a cure for this disease is laid aside. This operation is likely to be a therapeutic measure as long as the disease exists.

Salvarsan ("606")—The new remedy for syphilis is discussed enthusiastically yet. However,

the pendulum seems to be swinging from the point of extreme enthusiasm manifested in favor of the remedy to a more conservative standpoint. The other arsenical preparations like atoxyl were found to be very damaging to eyesight. It was hoped that salvarsan would overcome this defect, but late reports show that it is to be handled very carefully. However, it is well to note what Flemming of the Charité, Berlin, has to say (*Arch. Ophthal.*, May): "To sum up, we can say that in '606' we have an effective treatment for syphilitic diseases of the eye in which a rapid result is essential or when cases have failed to respond to mercurial and iodid treatment. . .

"The ill effects attributed to the treatment by some could not be borne out by this report. Such adverse conditions as were observed were accredited to the lues itself rather than to the new treatment."

Stuelph (*Klin. Monatschr. f. Augenh.*, xlix, March) gives the following contra-indications in the use of salvarsan: (1) Non-luetic diseases of the optic nerve and retina. (2) Neuroses and organic diseases of the heart and blood-vessels. (3) Severe diseases of the lungs, excepting tuberculosis if there be no hemoptysis. (4) Severe non-luetic nephritis and diabetes. (5) Severe visceral lues, ulcers of the stomach. (6) Advanced degeneration of the nervous system and alcoholism. (7) Severe congenital lues of the new-born. (8) Febrile diseases of various kinds. (9) Menstruation. (10) Senile degeneration, non-luetic marasmus and cachexia.

Falta (*Deutsch. med. Wchnschr.*, April 13) warns against the indiscriminate use of salvarsan treatment of syphilitic eye diseases.

B. C. Corbus (*Medical Record*, November 12) reports results in 230 injections in various stages of syphilis with reference to the eye and ear. There were no bad effects. He recommends it especially in the earliest stages.

Cross Eye.—Linn Emerson's article in the January number of *Ophthalmology* deserves wide reading that the profession in general may understand what can be accomplished by glasses, exercise and rest in the treatment of this condition. The great majority of cases of cross eye can thus be cured, leaving but a minority who will need operation.

Physicians Refracting.—Our late esteemed friend and confrère, Dr. Leartus Connor, put on foot before his death a propaganda that will tend to neutralize the work of the so-called optometrist. It is that the general practitioner learn how to fit glasses to patients' eyes. He summarized his reason as follows: (1) It gives patients improved vision and relieves their discomforts. (2) It makes better doctors, by developing power otherwise left dormant. (3) It augments professional income. (4) It bridges the chasm that bars free cooperation of the family physician and ophthalmic surgeon. (5) It strengthens physicians' organizations. (6) It furnishes prompt relief to all victims of eye diseases. (7) It brings the largest returns of ophthalmology by providing an educated physician competent to study every eye case. (8) It improves general practice by furnishing physicians trained to detect the significance of eye symptoms of every disorder. Certainly as ophthalmologists we hail the cooperation of the general practitioner thus, for we do not have it from the so-called optometrist.

Trachoma.—As to the etiology of this disease, we seem to be as much at sea as ever. Yet does it remain to be proved that the trachoma bodies of Halberstaeder and Prowazek are the cause.

Articles like that of Bray in the New York *Medical Journal* for March 4 are liable to be followed by an epidemic of the disease. The disease is much more contagious than he supposes.

Papilledema or Choked Disk.—James Bordley (*Ophthalmoscope*, January) makes an earnest plea for the early recognition of choked disk. In order to do so we must be able to detect alterations in the disk and the fields of vision accompanying the very early stages of the disease.

DeSchweinitz (*Annals Ophthalmology*, April) urges cerebral decompression early in tumors of the brain, that eyesight may be saved. If decompression is made too late in papilledema the tumor may have so destroyed the optic tracts as to render operation useless so far as the recovery of vision is concerned.

Phlyctenular Disease.—Tivnen (*The Journal A. M. A.*, December 9) finds tuberculosis to be the underlying cause of the disease, citing forty-six cases out of fifty responding to the von Pirquet test. This is in line with the investigations of Weekers of Liege (These d'agrégation presentii á la Faculti de Medicin de Liege, Mai).

Sympathetic Inflammation.—H. Gradle of Chicago has demonstrated that there is an increased lymphocytosis present in this disease. The demonstration thereof is a diagnostic sign of the disease.

The attempt to treat this disease by injections of the extract of the ciliary body has not met with much success, according to Heckel (*Ophthalmology*, April). The advice of Gifford still holds good. Give the patient salicylate of sodium

at the rate of 1 grain per each pound of body weight per day.

Metabolism in Its Relation to the Eye.—The oculist who fails to note that the eyes are but a pair of organs in the living body, dependent ofttimes for their weal or woe on the condition of the body in general, will miss much of value in the treatment of eye diseases. Ziegler (*Annals of Ophthalmology*, April) sums up the chemistry of metabolism in its relation to ocular disease as follows: (1) Administer those chemicals which will neutralize the irritating toxins and sterilize the body fluids, thereby inhibiting chemotaxis and preventing bacterial growth. (2) Increase the systemic oxidation by removing all respiratory obstruction and improving the nasal ventilation and sinus drainage. (3) Inhibit perverted lymphatic secretions by proper therapy. (4) Stimulate fresh lymphatic secretions by the use of lymphagogues. (5) Administer glandular extracts when the internal secretions are deficient or perverted. (6) Correct gastro-intestinal errors by dietetic, digestive, antiseptic and purgative measures. (7) Eliminate catabolic products by diaphoresis and stimulate the normal activity of the skin. (8) Encourage elimination by the kidneys. (9) Reduce high blood-pressure and regulate the cardiac and peripheral circulation. (10) Employ hypodermoclysis (local and general) when the poisons are unusually virulent, in order to quickly dilute the body fluids and thus lessen the corrosive action of the concentrated toxins.

Superficial Punctate Keratitis of Fuchs.—Verhoeff's article on the pathology of this disease appears in the September number of the *Archives of Ophthalmology*. It is very full, interesting and throws much light on this disease. It must be read in its entirety as no abstract will do the article justice.

Removal of the Lens in High Myopia.—Since Fukala first proposed this operation, its value as a therapeutic measure for the improvement of vision has gradually declined. Geert in his doctorate address in Leiden lays down the following conclusions at the end of his paper: (1) The myopia operation should be done only when the wearing of strong glasses causes too great discomfort. (2) It should be performed on one eye only and never when the other eye is blind or nearly so.

Central Color Vision.—Syndacker (*Arch. Ophthal.*, March) adds to the Snellen test card squares of red and green, to test readily the central color vision. The red squares are 2.5 and 5 mm., and the green ones 3 and 6 mm. respectively.

Removal of Foreign Magnetic Bodies from the Eye.—Professor Rollet of Lyons (*Ophthalmoscope*, August) proposes a new arrangement of the giant magnet of Haab for the extraction of magnetic foreign bodies. The magnet is set vertically, point down, in a heavy frame. The magnet is raised or lowered by means of a screw. The patient, reclining on an operating table, is pushed under the tip of the magnet.

Toxic Amblyopia.—Ziegler (*Ophthalmology*, July) reports a case of toxic amblyopia due to the ingestion of wood alcohol, cured by the use of the negative galvanic current.

Ophthalmia Neonatorum.—During the past year the state of Indiana placed on its statute books a law for the prevention or this disease which has been pronounced by authorities to be the model law of all laws thus far passed by the dozen or more states having such laws.

Conservation of Vision.—For several years the American Medical Association has been studying the conditions surrounding eyesight. The result is that considerable attention has been given and is being given to the conservation of vision. Mrs. Russell Sage has set aside a very considerable sum of money the income of which is used for the propagation of this work. The endowment is the foundation on which the American Association for the Conservation of Vision rests. Our own State Medical Association has endorsed this movement and has subscribed to its membership.

The Eye in Relation to the Nose.—For many years it was the custom for physicians limiting their practice to ophthalmology to also attend the ear. The association was artificial. Nowadays the association anatomically, pathologically and physiologically is between the eye and the nose, and the accessory sinuses. Dowling (*Ophthalmology*, April), in an article on the "Relationship of the Anterior Ethmoid Region to Diseases of the Eye," gives some conclusions worthy of note: (1) Where glasses do not fit look to the nose for hypertrophic tissue. (2) Recurrent iritis may be due to trouble in the anterior ethmoid region. (3) Infection of the conjunctival sac may forbid operation for simple glaucoma. (4) Epiphora most likely has its origin in the nose. (5) If the ocular disease be due to trouble of the ciliary nerves, amputation of the hypertrophied anterior turbinals may be in order. It has been my rule ever since I began the practice of medicine to examine the nose when making an examination of the eyes, a procedure taught

me by our esteemed confrère Dr. J. L. Thompson of our own state.

EAR, NOSE AND THROAT

Salvarsan ("606")—Salvarsan, according to Alexander of Vienna, has a good effect in cases of chronic labyrinthitis due to chronic syphilis.

Hugo Frey, of Vienna, in an address before the Section of Laryngology and Otology of the American Medical Association, last June, thus sums up his paper: "There is no reason from refraining the treatment with salvarsan in cases which otherwise seem adapted for it, from any fear of permanently injuring the auditory apparatus."

Beck (*Muenchen. med. Wchnschr.*, October 17) reports a case of deafness following the use of salvarsan.

David (*Presse méd.*, July 22) reports a case with defect of hearing following the use of salvarsan, for secondary syphilis. He has collected twenty-eight similar cases.

Relation of the Ear to the Nose and Throat.—Barnhill before the Section of Laryngology and Otology of the last meeting of the American Medical Association read an article entitled "What Improvement Can Be Expected from the Treatment of the Nose and Throat in Middle-Ear Deafness." This one sentence taken therefrom needs to be burned into the memory of every practitioner of medicine, parent and school teacher: "It is rare in my experience to find a child with a well-developed adenoid untreated till the age of 10, in whom there is not found an easily discoverable defect of hearing."

Field's article in the July number of our own State Association JOURNAL, pleading for the early recognition of internal ear involvement, is worthy of rereading.

Education of the Deaf Child.—The past two years especially have witnessed a very marked advance in the interest that physicians have manifested in the education of the deaf child. Dr. James Kerr Love of Glasgow addressed the 1910 meeting of the American Laryngological, Rhinological and Otological Society on this very subject. He was one of a number who took part in that phase of the program. His book, "The Deaf Child, a Manual for Teachers and School Doctors," appeared this year. This little work should be read by all practitioners of medicine that each may be prepared to give good advice to the distressed parent who has found that his or her child is deaf and not knowing where else to turn for advice first seeks the counsel of the family physician, and ofttimes is told that the child will outgrow the difficulty. Then after a lapse of anxious waiting the parent discovers that the child will never hear again if it ever heard at all. The conclusion of the profession now is that the child should be taught as early as possible to read the lips of those with whom it holds converse and to reply with its own voice. At best the sign language is understood by the few who have, by force of necessity, to converse with the deaf. To be able to read the lips of those with whom it converses is to open a new world to the child wholly unoccupied by those who use the sign language for conversation.

"The problems of deafness are more complex and deeper, if not more important than those of blindness. 'Deafness is a much worse misfortune, for it means the loss of the most vital stimulus — the sound of the voice — that brings language, sets thought astir, and keeps us in the intellectual company of man" (Helen Keller).

Pathology of Oto-Sclerosis.—The feature of the last session of the American Academy of Ophthalmology and Oto-Laryngology was the address of Dr. Albert Gray of Glasgow on this subject. The paper is yet to be published and will be read with much interest by all interested in this interesting cause of deafness.

The Radical Masloid Operation.—Perhaps the most important communication on this subject in English for the past year is Allport's (*Annals of Otology, Rhinology and Laryngology*, June). He lays down the idea that the more he sees of the so-called Heath operation the less he is impressed with it. That it is poor surgery to leave behind the diseased middle ear and diseased attic.

Removal of Tumors of the Hypophysis through the Nose.—These particular lines of work are always under obligation to the rest of professional activity for suggestions of great value: this is true with reference to this operation. It would seem as if some rhinologist ought to have discovered this operation, but it remained for the general surgeon to learn that by removing the septum nasi, the turbinal bodies, and opening into the sphenoid sinus a way opened for the opening of the roof thereof right on to the hypophysis itself and all under local anesthesia. In this country Halstead, a general surgeon, assisted by a rhinologist, Pierce, has pioneered in this work.

Hirsch (*Berlin. klin. Wchnschr.*, October 29) reports this operation in twelve cases, with ten favorable cases. "In nearly every case the acromegaly, headache and disturbances of vision were notably improved."

Treatment of Saddle Back Nose.—Carter (address American Academy of Ophthalmology and Oto-Laryngology, 1911) advocates the use of a piece of the ninth rib of the subject with this deformity, placed under the skin of the nose its full length. The skin is dissected up subcutaneously, with the initial incision at the root of the nose. The piece must be the individual's own. A piece grafted from another will not do as has been shown by Murphy in grafting bone in other parts of the body. Carter shows some very beautiful results with his method.

Frontal Sinus Operation.—Reaction has set in against the radical Killian operation for frontal sinus trouble, because of the great amount of deformity that follows the operation.

The Maxillary Sinus.—Fletcher's article (*Jour. Ophthal. and Oto.-Laryng.*, January) on cysts of the maxillary antrum (antrum of Highmore) is wonderfully illuminating and clears up the subject and explains why it is that we have been disappointed in many of our sinus operations when made through the nose.

"The Lateral Nasal Wall of the Cavum Nasi, with Especial Reference to the Various Developmental Changes" (*Annals Otol., Rhin. and Laryngology*, July), is the subject of a very exhaustive article by James Parsons Shafer of Ithaca. It is an important contribution to the embryology of this specialty and worthy of careful perusal. Studies of this nature tend to place American rhinology on a higher plane than it has previously occupied.

Killian (*Deutsch. med. Wchnschr.*, April 20) in acute cases of sinusitis advocates the use of the electric light bath placed over the face. Four incandescent lamps burn in a box directly on the patient's face, the eyes being protected by an opaque bandage. The patient breaths through a rubber tube, the other end being outside the box. The hyperemia thus produced is enhanced by the administration of small doses of sodium or potassium iodid, rest in bed and from 7½ to 15 gr. of aspirin, half an hour before the electric bath to promote sweating.

Orthodontia and Rhinology.—During the past year the relationship between dentist and rhinologist has become still more intimate, and why not so when the floor of the nose and the mouth roof are the same? A. Hill (*Jour. Ophthal, and Oto-Laryng.*, March) advises that "adenoids and hypertrophied tonsils should be removed before orthodontic procedures are instituted." "Mouth breathing is never due to 'habit,' except in degenerates and the insane, but is caused primarily, as a rule, by adenoids, contracted arches and hypertrophied tonsils." "The time for the rhinologist and orthodontist to work jointly is during the developmental period." This is in line with the writings of Brophy, Dean, Talbott and others.

Cleft Palate.—As noted above, the palate forms the floor of the nose, and with this in mind as an important adjunct to nasal breathing, rhinologists have come to give this subject the importance that it deserves from the standpoint of the nose. Jacobson, in the *American Journal of Surgery*, advises early operation, the earlier the better. He prefers the operation of Lane. Important contributions to this subject have been made by Brophy, G. V. I. Brown and Lyons.

Cancer of the Larynx.—As the earliest symptoms of cancer of the larynx are easily recognizable by the physician, T. Della Vedo (*Policlinico*, Rome), urges that operation be made on the sign of the change of voice, persisting unmodulated, even though the general health remains good. He prefers laryngotomy.

Third International Congress of Laryngology and Rhinology.—This assembled in Berlin, August 30 to September 3. One of the chief symposiums was devoted to bronchoscopy and esophagoscopy, and participated in by Killian, Kahler and our own Jackson of Pittsburgh. Another was on the "Lymphatics of the Nose and the Naso-Pharyngeal Cavity in Its Relation to the Rest of the Body," and participated in by Broeckert of Ghent, Poli of Genoa and Logan Turner of Edinburgh.

Instruments.—Many have been the instruments invented for the treatment of the eye, ear, nose and throat. We will pause to note but one: the naso-pharyngoscope of Holmes of Boston. This he showed at the last meeting of the American Otological, Rhinological and Laryngological Society. This is on the principle of the cystoscope. It gives a view of nasopharynx which is superior to anything hitherto attempted and renders useless the postnasal mirror.

We conclude this review, but before we do so we must pause to note the deaths of those who during their lives contributed largely to the progress of our specialties. The toll of death has been very heavy. In this country alone the following rest from their labors and are at peace: Herman Knapp of New York, A. W. Calhoun of Atlanta, L. W. Connor of Detroit, C. A. Oliver of Philadelphia, Henry Gradle of Chicago, A. R. Baker of Cleveland, F. A. Koyle of Hornellsville, Alvin A. Hubbell of Buffalo, Charles Stedman Bull of New York and Charles Kipp of Newark.

PROGRESS IN PREVENTIVE MEDICINE FOR THE YEAR 1911

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The past year has not been as fruitful in preventive medicine as some which have gone before. No such discoveries as the hookworm conquest or the carriage of yellow fever infection by mosquitoes have been made, but many discoveries minor to these have attended the efforts of medical science.

The disease prevention work in the Panama Zone still goes on under the masterly conduct of Col. Gorgas, and it still stands as the monumental effort in that line. The morbidity rate there is lower than in some of our cities and the death-rate, excluding deaths by machinery, is equally as low. Cleanliness, much living in the open air, good water, plain well cooked food, encouragement of moderation, and an unceasing fight against mosquitoes and other insects have produced the expected results.

OCCUPATIONAL DISEASES

On every hand efforts are being made to lessen occupational diseases. Basements of big department stores now rarely reek with foul air because of the instalment of forced ventilation. In consequence, consumption among clerks in such places is decreasing. Forced ventilation has also been installed in cigar and clothing factories and this will surely soon bring a decrease in the morbidity and mortality rates of those engaged in these occupations. The year's vital statistics show no betterment in the teachers' death-rate from respiratory maladies. This indicates that the many new sanitary schoolhouses constructed in the last few years either have had no effect in reducing the mortality of members of this occupation, or that sufficient time has not yet elapsed to make a showing. Teachers, above all others, should closely conform to natural and statutory hygienic laws, but evidently they do not because it is proven they now have higher sickness and death-rates than exist in general life.

The committee of the National Conference on Industrial Diseases urged three steps on the federal government: "(1) the appointment of a national commission of inquiry, to consist of senators, congressmen and experts in preventive medicine, medical practice, sanitary engineering, industrial chemistry and applied statistics, and charged with the comprehensive investigation of the whole subject of occupational diseases; (2) the establishment of a national institute of industrial hygiene, equipped for research into the causes and treatment of factory diseases and designed to carry out proposals of the national commission, publish results, and encourage the pursuit of industrial medicine as a distinct profession; (3) the creation of a national welfare institute, for the improvement of labor conditions, including a museum of safety devices, whereby the accidents of industrial life may be lessened, and the ravages of industrial disease be diminished." If even a part of these recommendations are put into practical operation, this year will mark the greatest progress yet secured in industrial hygiene. In writing on this subject Hanson says: "Medical men alone are in a position to make the best use of facts obtained concerning the sanitary conditions of the premises where men and women work; to study the possible injurious effects of certain processes on the health of the persons engaged therein; to inspect devices designed to protect employees against dangerous and injurious substances, as well as to detect pathological signs or symptoms of certain poisons, and dusts and fumes incident to some occupations; to inquire as to the health of the employees; to make physical examinations of minors, and of adults engaged in trades deemed injurious to health; and to collect and make use of all facts and data, including morbidity and mortality statistics pertaining to occupational hygiene." Gauged by this a heavy burden certainly lies upon the shoulders of physicians in connection with this branch of preventive medicine.

INFANT MORTALITY

In considering the progress of public health work it would be a gross error to leave out a consideration of the proceedings of the *American Association for the Study and Prevention of Infant Mortality*. This association proposes to begin at the very beginning of life to apply the means known to hygiene for the postponement of death. "The first step," said President Prof. Charles R. Henderson, "for the protection of the infant is to respect its rights to be registered and from the time it is born through all its life it has a right to its name and place in citizenship, for without these all its other rights are lost or rendered uncertain. They cannot be maintained unless there is registration at the time of its birth." Prof. Henderson further said, "Eugenics stands for the rights of society, for the rights of the mothers to be healthy and for the rights of the infants to be well born." Infant mortality from the pure milk point of view, from that of the district nursing, from that of the midwife

and indeed from almost every point of view was considered. That public health service which does not thoroughly consider the infant can be of only partial effectiveness.

POLIOMYELITIS

The unusual prevalence of poliomyelitis in the United States during the last few years has made it a subject of especial interest to preventive medicine, inasmuch as no remedy is known for it, curative medicine being at this time wholly impotent. The contagion of poliomyelitis manifests itself first of all by the coexistence of a succession of cases in a family or in a home. Numberless observations prove that persons have been attacked by the disease several days after a short and single contact with a patient, and also that the infection has been transported long distances. There are many examples that the germs have been carried by healthy persons who probably were germ carriers not effecting transportation in clothing but in their bodies. Schools are certainly able to serve for the dissemination of the disease, also markets, fairs, and public gatherings.

Convincing facts exist of the transmission by objects which have been in contact with patients. It has been demonstrated it is possible to produce poliomyelitis in monkeys by inoculation. The presence of the virus has been demonstrated in the secretions of the nasal membranes and the saliva of those afflicted. The pathogenic agent belongs in the category of ultra-microscopic organisms or *filterable viruses*. The virus is able to preserve its activity on the nasal membranes and the tonsils for a long time after the onset of the disease. Osgood has succeeded in producing a poliomyelitis by inoculating the adenoid germs removed from a child which was paralyzed more than six months previously. Regarding the entrance of the virus into the body: It may enter by the nasal fossæ, the trachea and bronchi and the digestive route. It may also travel along the nerves. The infection resists desiccation 15 and even 28 days and may therefore be carried by dust, and it has been proven by Flexner and Clark that it may be carried by flies. The contagiousness of poliomyelitis is incontestable but is relatively slight. In the prophylaxis of the malady isolation and disinfection must be enforced and account must be taken of health subjects, carriers of germs, whose rôle has been established. The virus is slightly resistant to the various disinfectant agents. Menthol, powdered salol, permanganate of potash 2 to 1000, or 1 per cent. hydrogen peroxid may be employed. The physician should advise the use of such agents in gargles, washes, or powders in the nasal fossæ.

Under the head of prophylaxis he may also order the administration of urotropin. This drug which is transformed into formaldehyd, an agent the activity of which against the virus is demonstrated, appears very quickly after ingestion in the cephalo-rachidian fluid, and Flexner and Clark believe that its use probably hinders the development of experimental poliomyelitis.

PREVENTION OF BLINDNESS

The ophthalmia neonatorum law passed by the last Indiana legislature is notable. It was written by the committee on ophthalmia neonatorum appointed from the state medical societies of the various schools of medicine. It provides that approved scientific prophylaxis shall be applied when necessary by the attending physician or midwife, and that report of the birth shall be made within thirty-six hours after occurrence, the certificate to tell whether or not prophylaxis has been applied. Failure to do this makes the bill for services invalid and subjects the offender to a fine of $10 to $50. Some opposition has developed to the law but always among those physicians who are known to be careless in keeping records and more or less neglectful of personal and public duties. So far, not a single practitioner who has established a name for honest and faithful attention to medicine and citizenship has made complaint.

SANITARY SCHOOLHOUSES

Another law of great import to preventive medicine passed by the Sixty-Seventh General Assembly was the sanitary schoolhouse law. This law is in the interests of the health of school children. It requires that all schoolhouses hereafter built or remodeled shall conform to certain specific sanitary conditions or the bills for the same shall be null and void. In addition a penalty of $50 lies against the trustee or trustees for violation. Under this law there can be no more insufficiently and wrongly lighted school buildings; no more unevenly warmed and insufficiently ventilated rooms; desks must be adjustable and properly placed in regard to the light; water-closets and outhouses must be sanitary and built according to specific directions; sites must be dry and ample in area for proper play-grounds; water-supply must be pure and pass the inspection of the health department and tin cups and buckets are condemned and forbidden. Indiana has been

tardy in reaching this stage of evolution in school sanitation but it has at last arrived and the state is to be congratulated.

MEDICAL INSPECTION OF SCHOOL CHILDREN

Although the necessity of medical inspection of school children, yes the duty of it, had been proved by the medical profession for many years, still Indiana did not take hold of the matter until 1911. In this our state was over ten years behind the heathen Japs who instituted medical care of school children in 1898. Our state was also behind many sister states but ahead of the majority. The law of 1911 bearing on this matter provides that school authorities may institute medical inspection and prescribes how it shall be conducted. Teachers are charged with the superficial inspection of eyes by the Snellen chart method, and the reporting of defective cases of vision so found to parents. Teachers also examine ears and test hearing according to specific directions, reporting to parents and advising medical attention when necessity requires. Teachers are also required to look out for evidences of sickness, their attention being called to drooping, listlessness, flushed cheeks, dull and heavy eyes, abnormal temperature, complaints of headache or other pains. On children so affected being found, it is the teacher's duty to call the attention of the inspecting physician to them. The physician then makes careful examination and reports diagnosis to parents or guardian with recommendations that the family physician be informed.

It is to be hoped the next assembly will make medical inspection compulsory, for as the state compels attendance it is its duty to attend carefully to the more important matter concerning life, and that is health.

At this date about 100 school districts have instituted medical inspection.

In this connection the State Board of Health has adopted the following:

INDIANA CHILD CREED

"Every child has the inalienable right to be born free from disease, free from deformity and with pure blood in its veins and arteries. Every child has the inalienable right to be loved; to have its individuality respected; to be trained wisely in mind, body and soul; to be protected from disease, from evil influences and evil persons; and to have a fair chance in life. In a word, to be brought up in the fear and admonition of the Lord."

PROGRESS IN PATHOLOGY AND BACTERIOLOGY DURING THE YEAR 1911 *

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In relating the year's progress in pathology and bacteriology there is nothing spectacular to record. The advances made have grown naturally out of former discoveries to which it will be necessary to refer occasionally. The progress has therefore been continuous and extends over a wide field of scientific medicine.

The *Treponema pallidum* has been isolated in pure culture from syphilitic lesions in experimental animals and grown on artificial media by Noguchi[1] and by Hoffmann.[2] The organism grows only under the strictest anaerobic conditions, especially when first isolated. Syphilis has been reproduced in other animals by inoculation with these pure cultures. Koch's three postulates have thus been satisfied, and the proof that *Treponema pallidum* is the cause of syphilis made complete.

The successful cultivation of the specific organism naturally opens the way for certain clinical tests for syphilis after the order of the tuberculin tests for tuberculosis. Noguchi[3] has already attempted this. He made use of a suspension of killed treponemas called "luetin." The test is somewhat similar to the von Pirquet skin test for tuberculosis and depends on a similar principle, namely, a condition of skin allergy or anaphylaxis resulting from the infection with syphilis. The "luetin" is injected into, not underneath, the skin, and a positive reaction manifests itself by redness, induration and pustulation at the site of the injection. The test is rarely positive in the primary and secondary stages of the disease except occasionally in cases which have been treated energetically and in which clinical signs of syphilis are absent. The reaction is most constant and severe in the tertiary and hereditary forms of the disease. In Noguchi's series of cases it was present constantly (100 per cent.) in manifest tertiary syphilis, in 94 per cent. of latent tertiary affection and in 96 per cent. of hereditary syphilis. The simplicity of this test and its almost constant presence in those forms of

* For the benefit of those who may wish to investigate for themselves subjects which can only be briefly referred to in this paper, a bibliography of the most important articles is given herewith.

1. Noguchi; Jour. Am. Med. Assn., 1911, xiv, 99; also Jour. Am. Med. Assn., 1911, lvii, 102.
2. Hoffmann: Deutsch. med. Wchnschr., 1911, xxxvii, 1546.
3. Jour. Exper. Med., 1911, xiv, 557.

syphilis most difficult to diagnose will make it one of inestimable value to the clinician. Like the tuberculin test, "luetin" will not indicate the location of the lesion in the body. This fact will not detract from its usefulness, however, inasmuch as localization is not so important in syphilis as in tuberculosis.

The Wassermann serum test for syphilis is not now recognized as specific for that disease in the sense that the Widal reaction is specific for typhoid fever. This does not necessarily lessen its diagnostic value, however. The chief progress in connection with this test has been in the discovery of certain modifying factors and sources of error, which, now that they are known, can be avoided. For instance, Craig and Nichols[4] have shown that alcohol taken in considerable quantities will render the strongest positive serum negative.

The introduction of Ehrlich's therapia sterilisans magna led to numerous suppositions in regard to the possible production of immunity in the infecting parasites themselves. It is known that pathogenic bacteria and protozoa may become immune to both chemical parasiticides and immune serums. The resistance to antibodies in the serum is more readily developed than resistance to chemical agents, but the latter is more difficult to overcome. Chemical mutation, or acquired immunity of a parasite to chemical agents, is overcome in the case of protozoal parasites by passage through the natural intermediate insect host in which the reproduction is by sexual conjugation.

These somewhat theoretical considerations have an important bearing on certain problems of syphilis. Fresh outbreaks and relapses in this disease are caused by mutants or "fast" strains of *Treponema pallidum* that become immune to the antibodies thus far elaborated. The ultimate subsidence of the lesions depends on the production of antibodies for all the new strains. During the actual existence of the syphilitic infection, insusceptibility to reinfection is secured by the presence of antibodies in the blood to which the strain of treponemas intending to infect is not immune. But once the disease is actually terminated and all the antibodies discharged from the body, infection with a normal strain becomes possible.[5]

The impetus given to chemotherapy by the discovery of salvarsan has brought suggestive results in the treatment of other diseases. Starting with two known facts, namely, that like trypanosomes, pneumococci are dissolved by bile salts, and that certain quinin derivatives are very destructive to trypanosomes, Morganroth and Levy[6] have searched for a chemical substance capable of destroying pneumococci in the body. Using quinin as a base, they at length constructed hydrocupreinsulphate which proved to have a very definite curative effect on pneumococcic infections in experimental animals. This discovery may be a forecast of a successful chemotherapy against bacterial diseases.

The mechanism of recovery from pneumonia has never been satisfactorily explained. The blood-serum of a patient, even after crisis, has practically no pneumococcidal action and virulent pneumococci are only very slightly susceptible to phagocytosis. The number of viable pneumococci in material drawn directly from the lung at different stages of the disease, varies greatly. In the earlier days and in fatal cases the number is large; in the later stages of cases which recover, viable pneumococci are relatively few in number.[7] It is true that the patient's own serum and phagocytes possess greater power of destroying pneumococci than those of a normal individual.[8] But this power is not sufficient to account for the phenomena of crisis. One possible factor appears to have been largely overlooked, namely, the combined action of the patient's blood-serum with certain of the more definite chemical bodies occurring within the inflammatory foci in the lungs. Antipneumococcus serum, which alone is neither bacteriolytic nor bactericidal, becomes powerfully pneumococcidal if combined with solutions of alkaline soaps of oleic acid, provided the natural affinity of the oleate for the protein of the serum is overcome by the addition of a minute quantity of boric acid. Substances in the nature of oleates are found in the exudate in pneumonic lungs in the later stages of the disease. While the tendency of oleate to combine with serum prevents a mixture of the two from having a destructive action on pneumococci without the presence of minute quantities of boric acid, it is not impossible that these saponaceous substances in the nascent state in which they occur in the lung do exert with the serum their combined powerful destructive action.[9]

A practical application of this combination of serum and chemical substance has already been

4. Craig and Nichols: Jour. Am. Med. Assn., 1911, lvii, 474.
5. Flexner: Bost. Med. and Surg. Jour., 1911, clxv, 709; and Ehrlich, Folia Serologica, 1911, vii, 697; also Jour. Am. Med. Assn., 1911, lvii, 1210.
6. Morganroth and Levy: Berl. klin. Wchnschr., 1911, xlviii, 1590.
7. Rosenow: Jour. Infect. Dis., 1911, viii, 500.
8. Tunnicliff: Jour. Infect. Dis., 1911, viii, 302.
9. Lamar: Jour. Exper. Med., 1911, xiii, 1 and 380; and 1911, xiv, 256.

made. The injection of a suitable mixture of sodium oleate, immune pneumococcus serum and boric acid into the subdural space of the cord has proved a thoroughly efficient remedy in pneumococcic meningitis.[10]

Wollstein[11] has succeeded in producing an effective serum against influenzal meningitis. This form of infection is by no means uncommon and is almost uniformly fatal. The serum injected into the spinal canal of monkeys infected with influenzal meningitis causes the bacilli to be more freely englobed by phagocytes, their number is reduced, their capacity of growth diminished and their eruption into the blood arrested.

With the production of antimeningococcic serum already on a practical commercial basis, with the known possibility of producing a serum of proved efficiency against influenzal meningitis, and with a means of treating pneumococcic meningitis that is full of promise for the future, the cure of a large per cent. of cases of this dreadful disease is at least possible of accomplishment.

The advance in the investigation of the cancer problem during the year has been chiefly along three paths which lead to the most promising fields of future effort: namely, first, the treatment of cancer with autogenous and heterogenous body fluids; second, comparative study of animal and plant tumors; and third, the cultivation of animal tumor cells outside the body.

That the blood-serum, ascitic fluid and other body fluids of cancer patients might contain antibodies which would have a destructive action or at least a restraining influence on cancer cells has long been believed possible. The apparent cure obtained by Hodenpyl by injecting a patient with cancer of the uterus with her own ascitic fluid, seemed to hold out great promise. Further investigations, however, have not yielded such promising results, and Hodenpyl's original patient has since died of metastatic carcinoma of the viscera. While the injection of autogenous or heterogenous body fluids into patients with cancer has not led to permanent cure, it has been followed by decided temporary benefit such as relief of pain, improvement in nutrition, and retardation of the growth for varying periods of from one to five months. Local hyperemia and swelling lasting for a few hours practically always occur in the tumor immediately following the injections. This fact strongly suggests the existence in these fluids of some specific substance which acts on the tumor itself.[12]

Few persons are aware, perhaps, that many plants suffer from new growths which bear a striking analogy to malignant tumors in animals. The crown galls sometimes seen on trees are characterized by an enormous proliferation of cells, which invade surrounding structures; they cause metastases; they tend to occur at the site of scars, as in pruned roots or at the junction of stock and graft; tend to recur after excision; and a certain degree of immunity can be produced in plants by repeated inoculation.[13] This branch of comparative pathology has hardly been touched.

A most promising field of investigation has been opened up by the discovery of a method of growing living tissues outside the body. By the use of blood-plasma as a culture medium, carcinoma, sarcoma and even normal tissue cells can be cultivated and their growth observed under the microscope.[14] Tumors have been produced in animals inoculated with carcinoma or sarcoma cells which have been carried through several generations on artificial media.

Sarcoma cells growing in blood-plasma show actively ameboid movements, are phagocytic and show numerous karyokinetic figures. Carcinoma grows as a solid sheet of cells which show less active ameboid movements.

Rats and mice may be rendered immune to transplantable rat and mouse sarcoma so that tumors inoculated into them will not grow. Rat sarcoma cells, however, will grow quite as vigorously in the plasma of immune animals as in the plasma of normal and tumor-bearing rats. The immunity evidently does not depend altogether on substances circulating in the blood.[15] These experimental results are especially interesting in view of the clinical results, already mentioned, which followed the injection of ascitic fluid from cancer patients.

The search for the "germ of cancer" has always been unsuccessful. All trustworthy experiments heretofore have pointed to the living carcinoma or sarcoma cell as the sole organism of transmission of tumors whether to distant organs of the same animal in the form of metastases or to other animals in experimental production of cancer or sarcoma. Rous,[16] however, has recently been able to transmit a chicken sarcoma to

10. Flexner: Bost. Med. and Surg. Jour., 1911, clxv, 709.
11. Wollstein: Jour. Exper. Med., 1911, xiv, 13. See also, Flexner: Jour. Am. Med. Assn., 1911, lvii, 16.

12. Risley: Jour. Am. Med. Assn., 1911, lvi, 1383.
13. See Packard: Bost. Med. and Surg. Jour., 1911, clxv, 247; and Smith, Bulletin 213, Bureau of Plant Industry.
14. Carrell and Burrows: Jour. Exper. Med., 1911, xiii, 387 and 571.
15. Lambert and Hanes: Jour. Exper. Med., 1911, xiii, 495 and 505; and xiv, 129.
16. Rous: Jour. Exper. Med., 1911, xiii, 397.

another fowl of the same breed by the injection of the filtrate obtained after grinding up the tumor in a mortar and passing it through a Berkefeld filter. The clear filtrate showed nothing visible by dark-ground illumination. The tumor produced in the second chicken was exactly similar to the parent tumor. There appear to be only two possible explanations for this unusual result: first, that a minute, ultramicroscopic parasite was the cause of this sarcoma; or second, that some chemical substance was elaborated by the tumor capable of producing another tumor in a new host and thus cause a further production of the same stimulant. It is not possible at this time to say which is the correct explanation.

The value of massive doses of antitoxin in apparently hopeless cases of diphtheria has been much discussed. There is abundant testimony to the value of intravenous injection of such doses.[17] It now appears that intramuscular injections, if made into the lumbar muscles, are absorbed with great rapidity and produce their effects almost as quickly as when made directly into a vein. This is a massive muscle containing relatively little connective tissue and enclosed in a dense, inelastic fascia. This fascia does not allow the muscle to expand as the injection is made: the intramuscular pressure is raised and the injected material forced rapidly into the circulation. Injections into the gluteal muscles give results very little more promptly than subcutaneous injections.[18]

Justification of the general use of prophylactic doses of diphtheria antitoxin is by no means complete. There are excellent reasons for limiting its use entirely to children already suffering from some other infectious disease, as scarlet fever and measles, and to the weakly children in families during an epidemic. The immunity thus acquired does not last longer than three weeks, and may therefore disappear before the danger has subsided. There is always the possible danger of a severe anaphylactic reaction in such persons in case a curative dose of antitoxin should become necessary at some future time.[19]

A more rational and apparently more effective means of prophylactic immunization is that described by Blumenau.[20] He gave doses of antitoxin to 348 children with measles or scarlet fever and repeated the dose in two weeks. Nineteen, or 5.5 per cent., of these children later developed diphtheria, and 18.4 per cent. showed signs of serum sickness (anaphylaxis). He then tried active immunization by introducing into the child's nostril every third day a pledget of cotton saturated with a dilute solution of diphtheria toxin. There was no injury to the nasal mucosa and a high degree of immunity was produced which lasted several months, and, in some cases, several years.

One of the most difficult problems which confronts the health officer is the proper management of healthy diphtheria bacilli carriers. Emmerich and Loew some years ago advocated the use of a spray composed of the filtrate from broth cultures of *Bacillus pyocyaneus*. More recently a twenty-four hour broth culture of living *Staphylococcus aureus* has been used as a spray. Diphtheria bacilli disappear from throats so treated in from twenty-four to seventy-two hours after the use of the spray. The method appears to be harmless and effective.[21]

The unfortunate results which sometimes follow the injection of diphtheria antitoxin partake of the nature of an anaphylactic reaction. The reaction may be "immediate," if it follows within a few minutes of the injection, or "accelerated." Persons who have not received a previous injection of antitoxin frequently suffer from an eruption, pyrexia, and joint-pains, beginning, as a rule, in from eight to twenty-one days after its administration. In an "accelerated" reaction these symptoms appear earlier and are more severe. A possible explanation of the occurrence of such symptoms in persons who have never received a first or sensitizing dose of antitoxin is suggested by the results of experiments of Rosenau and Amoss.[22] Human breath was condensed and collected in apparatus very carefully arranged to prevent the carrying over of saliva. The fluid thus obtained was injected into guinea-pigs. Two to three weeks later these guinea-pigs were given 0.5 to 1 c.c. doses of human blood-serum. More than 25 per cent. of the guinea-pigs suffered a severe and sometimes fatal anaphylactic reaction. The anaphylactic reaction is known to be absolutely specific, and can only be produced by protein substances more complex than peptones. The sensitizing substance in the expired breath must therefore have been protein in nature and may be assumed to have come from the blood. This discovery may furnish a clew to the severe immediate reactions and sudden deaths which occasionally follow injections of the horse serum contained in diphtheria antitoxin. Almost all these cases are in adults or older children, very

17. Meyer, F.: Berl. klin. Wchnschr., 1911, xlviii, 2027; and Hoesch: Deutsch. med. Wchnschr., 1911, xxxvii, 1683.
18. Auer and Meltzer: Jour. Exper. Med., 1911, xiii, 328.
19. Meyer, F., loc. cit.
20. Blumenau: Jahrb. f. Kinderh., 1911, xxiv, 141.
21. Page: Arch. Int. Med., 1911, vii, 16; and Catlin, Scott and Day: Jour. Am. Med. Assn., 1911, lvii, 1452.
22. Rosenau and Amoss: Jour. Med. Research, 1911, xxv, 35.

seldom in young children. "It may now be assumed that some susceptible persons may absorb, through the lungs, enough horse protein from close association with horses, to become sensitized." This hypothesis is now being tested on experimental animals. The results will be awaited with much interest.

Scarlet fever and measles have been produced in lower animals, thus making it possible to secure accurate experimental data concerning these diseases. The injection of an emulsion of the skin, of lymph glands, or of the initial coating of the tongue of scarlet fever patients has produced in apes a disease resembling scarlet fever in man in all essential points. Inoculation of the mucous membrane of the nose and mouth with the same material gives similar results. The virus is probably filterable. It was not found possible to produce the disease by inoculation with streptococci. These bacteria, therefore, although always present, are probably only secondary invaders in scarlet fever.[23]

Experimental measles has been produced in monkeys (Rhesus) by inoculation with the blood, and with nasal and buccal secretions of measles patients. The secretions appear to be infectious at the time of the first appearance of the eruption and for at least forty-eight hours thereafter. A limited number of attempts to inoculate monkeys with the desquamating epithelium ("scales") from measles patients were unsuccessful. The practical bearing of the apparent non-infectious nature of "scales" from measles patients is very great. It is to be hoped that the question may be definitely settled in the near future by further experiments.[24]

This year has seen a marked advance in the popular acceptance of antityphoid vaccination as a means of preventing typhoid fever. The record of the United States Army Maneuver Camp in Texas has been published and shows that among 12,800 soldiers in the camp only one case of typhoid developed.[25] This was in a teamster who had not been vaccinated against the disease. Several state boards of health, notably those of Indiana and Wisconsin, are distributing through their bacteriologic laboratories, antityphoid vaccine free to physicians.

While *Bacillus typhosus* has been generally accepted as the cause of typhoid fever, experimental proof has been lacking until recently. Metchnikoff and Besredka[26] have produced the lesions of typhoid fever in chimpanzees by feeding them the stools of typhoid patients. The incubation period in the animal was about eight days.[27] Fever and diarrhea were present, the Widal test was positive, and *B. typhosus* was isolated from the blood and stools of the sick animal. A second chimpanzee fed with a pure culture of typhoid bacilli isolated from the first animal also developed the disease, thus satisfying all three of Koch's postulates for typhoid fever. The lesions found at autopsy were identical with those of mild typhoid fever in man.

An abortive form of poliomyelitis has long been recognized on empirical grounds; it has now been established as a scientific fact. The blood-serum of a patient who has recovered from a frank attack of poliomyelitis has the power of destroying *in vitro* the virus of the disease. An animal injected with a mixture of this immune serum and virus will not contract the disease. The serum of patients who have recovered from the so-called abortive form of poliomyelitis has the same power of destroying the virus as that of persons who have had infantile paralysis in its true form. The identity of abortive poliomyelitis has thus been established.[28]

Three notable contributions have been made to the possible means of spread of infection of poliomyelitis. Osgood and Lucas[29] found that the nasopharyngeal mucous membrane of two monkeys still contained the virus six weeks and five and a half months, respectively, after the animal had recovered from the disease. The spinal cords of these monkeys proved at the same time avirulent. Neustaedter and Thro[30] report results which seem to show that they have succeeded in producing poliomyelitis in monkeys by injecting filtered extracts of the dust from the floor of a home in which there was a patient with the disease. Marks[31] has transmitted poliomyelitis to rabbits. The rabbit does not show the classical symptoms seen in human and monkey victims. But that it is due to the same virus is proved by the development of typical poliomyelitis in monkeys injected with virus which has passed through as many as six rabbits consecutively. These experiments indicate the possibility that the virus of

23. Landsteiner, Levaditi and Prasek: Ann. de l'Inst. Pasteur, 1911, xxv, 754; also Bernhardt: Deutsch. med. Wchnschr., 1911, xxxvii, 791.

24. Anderson and Goldberger: Jour. Am. Med. Assn., 1911, lvii, 113, 476, 971.

25. Kean: Jour. Am. Med. Assn., 1911, lvii, 713.

26. Metchnikoff and Besredka: Ann. de l'Inst. Pasteur, 1911, xxv, 193.

27. It should be remembered that the chimpanzee received a much larger "dose" of typhoid bacilli than human victims ordinarily get. This may account for the relatively short incubation period.

28. Anderson and Frost: Jour. Am. Med. Assn., 1911, lvi, 663.

29. Osgood and Lucas: Jour. Am. Med. Assn., 1911, lvi, 495.

30. Neustaedter and Thro: New York Med. Jour., 1911, xciv, 613.

31. Marks: Jour. Exper. Med., 1911, xiv, 116.

poliomyelitis may survive and possibly be propagated in domestic animals which show no characteristic symptoms of the disease. As Marks suggests, such an animal may conceivably act as a reservoir for the virus of poliomyelitis much as the goat is known to serve as a reservoir for the organism of Malta fever.

Investigations of several cases of mysterious paralysis in domestic animals have been made in this laboratory. Typical lesions of poliomyelitis have not been found in any instance. Parts of the spinal cord were sent to Rockefeller Institute to be injected into monkeys. Negative results were obtained in every case.

Attempts to produce an effective serum for poliomyelitis have thus far been unsuccessful. However, Flexner and Clark[32] report promising results from the administration of fairly large doses of hexamethylenamin to experimental animals affected with the disease. This is one of the very few drugs which pass into the cerebrospinal fluid from the circulating blood. After its administration by mouth formaldehyd can be detected in the spinal fluid.

Much attention is now being paid to the biochemistry of bacteria. Investigations in this field have thrown new light on bacterial activity in the intestinal tract, and have made possible some more rational therapeutic deductions. There is a very fundamental distinction between the fermentative and the putrefactive activities of bacteria. Both are caused by enzymes elaborated by microorganisms. Fermentation is the action of microorganisms on carbohydrates and is characterized by the formation of acids and sometimes of gases. These products have little or no toxic property. Putrefaction, on the other hand, is the "bacterial decomposition of nitrogenous substances" (proteins). This process is accompanied by the formation of ill-smelling compounds, usually alkaline in reaction, which are often quite poisonous.

Many bacteria may cause either putrefactive or fermentative changes according to conditions existing in the medium in which they grow. For instance, *B. coli* grown in sugar-free broth produces indol and foul-smelling substances, while in sugar broth no indol is produced and the odor is not at all disagreeable. When a fermentable carbohydrate and protein are simultaneously present in the medium in which bacteria are growing, the fermentative or toxin non-producing process takes precedence over the putrefactive or toxin-producing process. The carbohydrate is attacked and used up before the protein is acted on to any extent.

These principles have an important bearing on intestinal bacteriology. One of their most practical applications is in the treatment of bacillary dysentery. The usual treatment is to withdraw all food for twenty-four to forty-eight hours. The intestine is soon completely emptied and the bacteria present must live on the intestinal secretions which contain protein matter with no available carbohydrate. The activity of the dysenteric flora (including *B. coli* and streptococci) under such conditions must be essentially putrefactive and the products distinctly toxic. If, after an initial purge, these patients are given a carbohydrate diet (preferably a 5 per cent. solution of milk sugar), these things will be accomplished: (1) The presence of a readily fermentable carbohydrate will change the character of the bacterial activity in the alimentary tract from the proteolytic, putrefactive or toxin-producing type to the fermentative or toxin non-producing type. (2) The products of fermentation are acids which tend to render the intestinal contents unsuited to the growth of dysentery bacilli. (3) Nourishment is furnished to the patient, a desideratum of no small moment. It is needless to say such treatment is contra-indicated in the so-called fermental diarrheas.

These principles also furnish a more rational basis for the treatment of auto-intoxication. After a period of feeding on a dominantly protein diet, the intestinal bacterial flora is of the putrefactive or proteolyzing type. Putrefactive products, indol, skatol, etc., are produced in the intestine. If the diet is now changed to one in which carbohydrate foods predominate, there is a rapid substitution of a fermentative non-proteolyzing type of bacterial flora for the strongly proteolyzing or putrefactive type. Putrefactive products, indican, etc., in the urine rapidly diminish. In experimental animals in which these phenomena have been most carefully observed, there is, on the substitution of the carbohydrate for the protein diet, a noticeable improvement in spirits and activity which may be safely construed as showing markedly improved sense of bodily and psychical well-being. If, as occurs in some cases, undesirable bacteria abound on both types of diet, frequent alterations in the chemical nature of the dominant food will be beneficial by interfering with the establishment of any one type of bacteria in the intestine.[33]

32. Flexner and Clark: Jour. Am. Med. Assn., 1911, lvi, 585.

33. Kendall: Boston Med. and Surg. Jour., 1911, cxxiv, 288 and 301; Jour. Am. Med. Assn., 1911, lvi, 1084; Jour. Med. Research, 1911, xxiv, 411; and 1911, xxv, 117.

The question of the exact relation of human and bovine tuberculosis has received much attention during the year. A mass of reliable data is being accumulated which will make possible a correct solution of this problem. In the latter part of last year Park and Krumwiede[34] made a notable contribution to the subject. They collected all cases reported up to that time and added 436 cases studied by themselves. Their collected results are shown in the following table:

TABULATION OF CASES OF TUBERCULOSIS SHOWING THE TYPE OF INFECTION

	Children Under 5 Years		Children Between 5 and 16 Years		Adults Over 16 Years	
	Human	Bovine	Human	Bovine	Human	Bovine
Collected cases	99	37	54	24	381	8
Park and Krumwiede's cases	62	22	45	9	296	1
Totals	161	59	99	33	677	9

An analysis of these 1,038 cases appears to justify the conclusion that "the incidence of bovine tuberculosis is practically a negligible factor in adult tuberculosis. In children, however, it causes a considerable percentage of cervical adenitis requiring operative interference; in young children an appreciable amount of fatal tuberculosis is caused by such infection."

The British Royal Commission on Tuberculosis, after several years of work, have made their final report.[35] The Commission is of the opinion that the human and bovine types of tuberculosis are not two distinct organisms but merely varieties of the same bacillus and that the lesions they produce, whether in man or in other mammals, are manifestations of the same disease. This premise being once accepted, their conclusion that "mammals and man can be reciprocally infected with tuberculosis" follows naturally. The Commission announces positively that the evidence which they have accumulated "goes to demonstrate that a considerable amount of the tuberculosis of childhood is to be ascribed to infection with bacilli of the bovine type transmitted to children in meals consisting largely of the milk of the cow."

Careful studies have been made of adults and children who had used milk from cows known to have tuberculosis of the udder. These cases approach most nearly the ideal of animal experimentation that can be obtained in the human subject. Weber[36] investigated 628 such persons, of whom 284 were children, and found only two cases of infection with the bovine type of tuberculosis. Both of these were cases of tuberculosis of the cervical glands in children. Hess[37] studied eighteen children who had drunk milk known to contain tubercle bacilli. Among these he found one case of tuberculous cervical adenitis.

In this connection, the careful work of Reichel and Deubler,[38] of Moore,[39] and of Casco[40] on the contamination with tubercle bacilli of milk from tuberculous cows is especially important. Their investigations made independently agree in showing that cattle which react to tuberculin do not necessarily throw off tubercle bacilli in the feces until the development of "open" lesions; that milk from cows with "open" lesions of the respiratory, alimentary or genito-urinary tracts is usually found to be accidentally infected with tubercle bacilli; and that milk from cows with tuberculous udders is always infected.

Numerous other advances in pathology and bacteriology have been made during the year. The more important of these can be only mentioned. Marine and Lenhart[41] have made a noteworthy contribution to the anatomic and physiologic relation of the thyroid gland to exophthalmic goiter. Gouget[42] and McGarrison[43] have presented strong evidence that endemic goiter is due to a filterable, non-dialyzable substance (virus?) in the waters of goiterous districts and in the stools of patients with this type of goiter, and have produced the disease in experimental animals to which the water was given.

It would seem that the so-called maize theory of the cause of pellagra is being abandoned and that it is to be placed among the infectious diseases. The cause is probably a protozoan parasite, "or an organism which, in its biologic behavior, reminds one of a protozoan," and is carried by a fly of the genus *Simulium*.[44] On the other hand, beriberi has been shown to be due to eating polished rice. The introduction of unpolished rice caused a fall in the death-rate from beriberi in one of the Philippine provinces from 309 in the year ending February, 1910, to none for the year ending February, 1911. The

34. Park and Krumwiede: Jour. Med. Research, 1910, xxiii, 205.
35. Report of the British Royal Commission on Tuberculosis, London, 1911.
36. Weber: Tuberculose Arbeiten a. d. Kais. Gesundheitsamte, 1910, x.
37. Hess: Jour. Am. Med. Assn., 1911, lvi, 1322.
38. Reichel and Deubler: Jour. Med. Research, 1911, xxiv, 5.
39. Moore: Jour. Med. Research, 1911, xxiv, 517.
40. Casco: Centralbl. f. Bakt., 1 Abt., Originale, 1911, lxi, 59.
41. Arch. Int. Med., 1911, viii, 265.
42. Gouget: Presse méd., 1911, p. 709.
43. McGarrison: Proc. Royal Society, Series B, 1911, lxxxiii, 335, and lxxxiv, 155.
44. Bertarelli: Centralbl. f. Bakt. 1. Abt., Referate, 1911, l, 129. An excellent brief summary of our knowledge of the etiology of pellagra.

feeding of rice polishings to beriberi patients caused marked improvement, and in most cases complete cure of the disease. The government now prohibits the sale of polished rice.[45, 46]

Leprosy has been transmitted to monkeys and the lesions, modes of infection, and problem of immunity to *B. lepræ* studied.[47] The technic for cultivating the lepra bacillus has been improved and something of its biochemistry has been learned.[48]

While no spectacular discovery has been announced during this year the above résumé indicates that much real progress has been made in both pathology and bacteriology. Koch's postulates have been satisfied for the first time for syphilis and typhoid fever, and a simple clinical test for lues has been devised. Carcinoma and sarcoma cells have been grown in artificial media and their process of growth observed under the microscope. An efficient serum against influenzal meningitis has been produced. Studies of the mechanism of recovery from localized pneumococcus infections have already developed therapeutic possibilities in the treatment of pneumococcic meningitis. The bacteriology of the gastrointestinal tract has been investigated from a new standpoint and the results are of great therapeutic importance. The progress of the year may thus be characterized as extensive, substantial, practical and full of promise for much greater advancement next year.

THE EFFICIENCY OF MEDICAL ORGANIZATIONS *

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President of the Indiana State Medical Association, Hammond, Ind.
HAMMOND, IND.

Mr. President, Members of the Seventh District Medical Society, Ladies and Gentlemen:

The opportunity you afforded me of meeting with the largest district society in the state when you invited me to speak on some subject connected with county, district or state medical society work, was too tempting and carried with it too much honor for me to forego (even though my time was very fully occupied), simply to placate my faintheartedness or to palliate my weakness. And so it is, that I assure you, that even though I fail to strike a single responsive chord in aught I say to-night, I shall go away feeling well repaid for having attended this meeting, since it has been an occasion both of pleasure and profit to me — pleasure in meeting old friends, and I hope in making new ones — profit in participating, as an auditor, in the high-grade scientific program presented this afternoon.

But all this is foreign to the subject I am supposed to elucidate. First, by way of preface, permit me to state that I have not presumed to come among you to tell you how to conduct your societies, or how to solve the difficult problems that from time to time may confront you — that would I think in your case be a work of supercrogation — but rather have I come to gain inspiration and assistance by speaking to you of some of the difficulties that others have had to contend with; and perhaps, if Dame Fortune smiles propitiously on me, aid the laity to perceive some of the advantages that may accrue from efficient medical organization.

I take it that in this age there is no necessity for argument in favor of organization. All trades and professions seem to have learned that it is one of the fundamental factors in evolution — one of the mainsprings in development and progress. The question at present is how to make the organizations we have the most efficient. As practitioners of the healing art we hold a peculiar — possibly a patriarchal — position in society. At some time or other we hold the health and happiness, the peace of mind — it may be the conscience — of individuals and groups of individuals, in our keeping. We are, to some extent, set apart, like the Levites of old, for a most especial purpose, and on our decisions, not seldom, may depend blessing or bane. Occasionally we too must suffer the sting of scorn, the anguish of contumely; and like all mankind we may personally meet sorrow and become acquainted with grief. As individuals we bear a triple relation to society: our duty to society at large (the community in which we live, the state, the nation and humanity as a whole); our duty to our patients (which may be a purely professional duty, or a social duty, or a complex duty involving both state and individual); and not least, our duty to ourselves (our families and dependents and our own individual personalities).

When one pauses to consider, after pushing aside the glamor of the quasi-public position of the medical practitioner, with all its social and spectacular possibilities, the burden thrust on our profession is, if not appalling, at least of sufficient weight to make us ponder long and care-

45. Heiser: Jour. Am. Med. Assn., 1911, lvi, 1237.
46. Breaudat and Denier: Ann. de l'Inst. Pasteur, 1911, xxv, 167.
47. Duval: Jour. Exper. Med., 1911, xiii, 374, and 1911, xiv, 181.
48. Gurd and Dennis: Jour. Exper. Med., 1911, xiv, 606.
* Read before the Seventh District Indiana Medical Association, at Franklin, Nov. 24, 1911.

fully as to its grave responsibilities and frightful possibilities. If ever a class needed above all others to worship at the shrine of Truth, it is certainly ours. And yet how often must we, like Pilate, ask in dismay or dread "What is truth?"

Personally, I believe that but few individuals have ever lived of genius sufficiently great, of stability sufficiently tensile, of philanthropy sufficiently broad, to bear this burden alone. Only by the closest and most kindly union with our fellows can such power and capability be, even in a measure, secured. This consequently brings us to one of the essentials of efficiency in medical organization, namely, cooperation. This calls for union in its fullest sense — union of effort, of sympathy, of interest. It calls for whole-hearted assistance — not lip service. It means the obliteration of petty jealousies and quarrels, and the inauguration of an era in which the success or honor of one becomes by reflection the pride and glory of all.

I know of no means of maintaining such a spirit of union more effective than the regular attendance on the meetings of the local medical societies. The frequent meeting with one's fellows serves to acquaint us with each other's foibles and peculiarities, be they strong or weak. It aids in smoothing off the sharp angles and destroying the feelings of distrust in the other's capabilities, or suspicion of the other's motives and methods, when such exist. Besides, each one of us has much to learn, and may have something to teach. I have observed that in the smaller societies, in which too often the meetings are sporadic and the attendance irregular, it is often difficult to secure programs of interest sufficient to attract the members. In some of these cases I have seen an agreeable transformation, both as regards the interest and attendance, follow on the adoption of a series of round-table discussions on some subject, or subjects, that at some time or other engages the attention of all. At other times reports of cases, or clinical exhibits, may serve the same purpose.

Considering the subject from another point of view, it appears to me that a consummation such as we have just mentioned, and so devoutly to be desired, is one worthy of not a little sacrifice of time and energy, on our parts. The dulcet symphonies of gentle concord are ever pleasanter than the jarring broken medleys of strife. Efficiency then can only be secured by sacrifice on the part of each and every one of us. We must be willing to give up a portion of our time, much of our energy, and, if need be, all of our knowledge to obtain it. Nor should we forget that this very sacrifice carries with it a double benefit — that of giving and that of receiving. Speaking from personal experience I may say that I have never yet prepared a paper for, or reported a case to, our local medical society, nor have I ever addressed *any* organization, without having the consciousness that I received much more than I gave, and I believe this has been the experience of every one who has essayed even a humble minor rôle in society affairs. So that, if one be inclined to regulate one's activities and efforts even by the narrow gauge of self-advantage, yet is there reason for, nay more, even absolute necessity for — this sacrifice.

But sacrifice of time and energy, and the giving of information, will not of themselves insure efficiency. Not seldom in medical organizations, as in other fields, is a virtue made out of necessity. It is so much easier to swim with the current than to breast the oncoming tide; it is easy to bask in the sunshine, and to absorb some of the warmth from the glow of others' efforts; and as at times it may be the politic and popular thing to be known as a member of the various medical organizations, so it occasionally happens that the sacrifice of time and energy given to the society is actuated by ulterior motives, and may after all be but lip service. The sacrifice that really counts — that has an intrinsic worth — is that of whole-hearted interest, the spirit that works simply for the love of work, that strives to aid for the love of aiding, taking no heed of the fact that in doing so one will be incidentally, but none the less certainly, aided.

Time after time does it occur that this duty of self-sacrifice falls on a faithful few. Year after year, it may be, "hope springs eternal in the human breast," and far too often it proves to be the "hope deferred that maketh the heart sick." Yet will perseverance succeed in the end. And this brings to mind another of the essentials in securing efficiency. Without persistence — the most dogged and determined perseverance — consistent efficiency cannot be obtained in any line of work. A week or a month of strenuous effort may avail, but it cannot avail much in the work of a lifetime, and still less in the work of an age, and in the development of a science. Never has there been science or art of which it may more truthfully be said that it is progressive than that of medicine. From the era of Moses, from the days of Hippocrates, it has been a steady development, a widening of activities, a broadening of perspective. With "tremulous steps and slow" it has been at times, but none the less a persistent advance. In fact, the whole

history of medicine, in spite of the apparent death slumber that has, on occasion, occurred, is the history of patient, painstaking perseverance and industry. Shall we then expect, in a few short months or years, to change the habits and proclivities of mankind? Why hope by the wave of a hand to dissolve the accumulated tendencies of eons, and in the twinkling of an eye attain efficiency where before existed only apathy or estrangement? Experience answers unequivocally that such miraculous transformations do not occur, and that, in order to attain this much desired goal, we must acquire the temperament of work and sacrifice. A mood may be the product of an hour, but a temperament may mean a lifetime of effort and discipline.

All this, however, is merely elementary. To-day the efficient medical organization must be more than the harmonious grouping of several individuals, pure of intent, earnest of effort, and kindly of thought and deed. It must be capable in action and competent in performance. It must meet the needs of its component units, and, as far as may be possible, solve their perplexities. If it fail to increase or improve the working equipment of its members; if it fail to strengthen their hold on the problems that confront them; if it fail to inspire them to greater efforts, be they professional, social or political; if it fail to preserve the traditions, and to develop the ideals of a noble calling, then is it lacking in true efficiency.

At present the field of medical knowledge is so vast, the progress of science (both the purely medical and the cognate) so rapid, that one cannot expect to keep abreast of the ever widening and changing phases it presents. The average medical practitioner is neither a Croesus nor an Admirable Crichton, and it would require the wealth of the first, and the marvelous mentality of the latter, to even pretend to keep in touch with the knowledge, and much less the opinions, of the day. With the manifold duties that the practice of medicine thrusts on us — to say nothing of the various social and political requirements we are called on to meet — the time for reading, study and investigation is too limited for aught but the most meagre skirting of the edges of the field of knowledge. Now, it would seem that here is a field of work that the efficient medical organization might profitably enter on. By a division of work — each taking on himself or herself the special line most to his or her taste; by as extensive reading and study as time and opportunity permit; by as wide a collation of facts in different spheres as possible, and by presenting from time to time a résumé of their findings, the special knowledge of each may become available, in a measure, to all. This week one member gives the report on the advance in knowledge, and the latest findings in neurology, another (it may be at another time) in pediatrics, another in pathology, and so on along the list of special studies. For we must all admit this is an age of specialism, or concentration (and this is possibly a better term), and we should recognize also that in this very fact of concentration may lurk dangers. Close application to any special line of work or study is especially liable to narrow one's field of mental vision, to restrict one's activities, to blunt one's keenness of perception and appreciation. In other words, it has a tendency to interfere with the development of the well rounded individuality. While it is true that it is well to know everything about something, how much better to know in addition to this, something about everything. It is said of Darwin (who was certainly one of the greatest examples of concentration along special lines of work) that it was one of his deepest regrets that his close application to the study of biology and natural history destroyed his capacity for the appreciation and enjoyment of poetry. By the adoption of some such method of division of work as has been hinted at, I believe it may be possible to lessen the tendency toward narrowness of thought that the exigencies of our avocation may possibly force on us. While that which has been said applies with particular emphasis to the small organization, I have no hesitancy in thinking that it can be adopted with equal, if not greater, value in the larger organizations. Year by year we add in our large societies to the numbers of special committees whose function it is to act along special lines and report their special findings. In our own State Medical Association this tendency is marked, and the special reports have become one of the notable features of the annual meetings.

But notwithstanding all that has been said, the crying need of our age, and of our profession, is not for new things; and while it is imperative to discover the whole truth and to learn of the new theories, yet is it of the utmost importance to keep in close touch with old principles. Twenty years of experience as a general practitioner has but served to strengthen me in the belief that our efficiency and success as physicians depend not so much on the new and striking theories and modes of procedure, as on a fuller and better knowledge, and closer application, of the old principles. Consider, for instance, what

the fuller knowledge afforded by modern scientific methods has developed out of the old humoral pathology. Often members hesitate to engage actively in the work of their local societies, and to take part in the programs, because they think they have nothing new or startling to present. This is a mistaken view to take. With each year of active practice we get farther away from the didactic and technical studies, so that frequent review of the groundwork of our knowledge becomes more and more necessary.

Again the efficient organization should not neglect the welfare of the body politic. In the efforts to add to the capability and competency of its individual members, it must not be forgotten that there is a wider educational field than the purely professional one. To teach humanity the laws of health, that these are as the laws of the Medes and Persians, that ignorance or wilful error is the foreordained pabulum on which most of our diseases thrive, should be one of the privileges and purposes of medical societies. This means that our organizations must be ever alert in safeguarding health, disseminating knowledge and framing public opinion. When we consider how much ill health and how many accidents are preventable, when we reflect that disease and accident mean waste and actual monetary loss, when we learn that health and, as a result, individual efficiency are the most potent factors in social economy and national wealth, it would seem that in a hard-headed commercial age it ought not to be difficult to bring about amelioration in the physical lot of mankind. Yet facts are stubborn things, and we find day by day that the rule of "penny wise and pound foolish" too often pertains in commercial pursuits, civic affairs and legislative chambers. Here is work for our societies — to lead the vanguard in pointing out the true economy and wealth of preventing disease and accident. To heal the ill may be a kind and noble deed, but to prevent the need and occasion of healing is kindlier and nobler still.

Nor have we yet run the gamut of our duty to the state. I have no desire to enter on the sphere of the so-called "muck-rakers," nor would I have our societies become the centers from which those pretended benefactors — the professional reformers — seek their cue, yet we cannot close our eyes to the fact that there is abroad in the land a false doctrine, whose tacit teaching is that the public — the state — is prey to be plundered when opportunity presents itself. The mad idea that wealth is the Ultima Thule of life, the wild desire to get something for nothing, is the foundation of this pernicious doctrine and corrupt practice. Our organizations cry aloud against the fraud and deception of quackery and illicit practice, against the snares and delusions of Christian Science and the various isms, that distorted and aberrant minds have produced (and let us pray for more vigor to the protest), and shall we pass unnoticed, or with smile of cynic, the moral obliquity that now is known as graft?

Education then, both professional and public, must be a function of the efficient medical organization. And while on this theme let me add that I think occasional public meetings are of inestimable value both to the laity and ourselves. Let our society meetings be an open forum occasionally if you will, and let us place both doctors and public on the stand for cross-examination. Other educational features of great value may be employed, such as joint meetings with other societies for the discussion of topics of common interest, plain talks to schools, clubs and so forth. And here let me pause long enough to pay a slight tribute to the worth of one who has been carrying on this great work of education throughout the state, one who has been diligent and efficient, who has accomplished much and will we hope accomplish more — a valued member of our profession and of our organizations — the secretary of the State Board of Health — Dr. Hurty.

Before leaving the subject of education, I desire to mention our duty as efficient organizations in regard to education and training preliminary to entering on professional study. Too often we meet physicians who seem to fail absolutely in any attempt to grasp the broader phases of the problems of disease, its production and eradication. Rational methods of examination and treatment are resorted to in the most empiric manner, and often without any idea as to their real significance and possible limitations. Instead of being true masters of craft, we may be only crude apprentices. Not infrequently investigation shows that this is due to the defects, or lack, of preliminary education. We as organized bodies should insist on the highest type and most complete form of general education prior to entering on the study of medicine.

Again, the efficient organization should have a parental interest in the personal welfare of its members. While the practice of medicine is not the place for that peculiar type whose sole ambition is the accumulation of riches, yet the fact remains that the vast majority of our profession must by means of that art secure sustenance both for themselves and for those dependent on them. There are but few sadder sights than that dere-

lict, the pauper doctor; there is not one more humiliating than the physician unable or unwilling to meet his obligations. To what extent such a condition may be resultant on disease of body or of mind is not now under discussion. Let it suffice to say that there are numerous means by which the efficient organization can aid in the recuperation of the failing unit.

And lastly the efficient organization must furnish its members, at need, with inspiration — that vital spark without which one's work will be listless and apathetic. In the history of mankind a few, and only a few, individuals stand out as seeming to be silent, solitary and self-sufficient. To what extent this seeming self-sufficiency has been studied and intentional, to what extent inspiration and encouragement have been sought in secret by these individuals, history has not divulged. This, however, we have learned, that the ordinary mortal is not sufficient unto himself. From some extraneous source must encouragement and inspiration come. A casual remark, the society of one's fellows, the example of a life, the story of a career or of a principle, or the spoken or written word, may at the crucial moment afford the needed stimulus to persist in what is apparently a hopeless contest, and if not to win, at least to keep one's self respect. Who is there among us that cannot recall some noble type from actual life, some striking character from printed page, some kindly word or deed, some inspiring thought, that has been as a guiding star by which to steer when the storms of calamity, difficulty or defeat threaten to sweep us from the moorings? He who has not sat, in person or in spirit, at the feet of some Gamaliel has been cheated of a potent portion of his armamentarium.

The value of an ideal — a high-set standard ever before the eyes, and the attainment of which is constantly sought — cannot be overestimated. But few ever enter the medical profession without the inspiration of the highest ideals, and imbued by the grandest motives. Too often the stress of circumstances — misfortune, want, defeat, wandering after strange gods — serve in a few brief years to shatter ideals and unconsciously, though none the less surely because unnoticed, to corrupt motives. Ideals lost, the individual tosses and tumbles on the sea of circumstance helpless as a sailless and rudderless craft, to be cast finally on the rocks of failure, or mayhap disgrace. Every failure is the enacted history of an unborn or slain ideal.

If then the medical organization can aid in inspiring its members to earnest endeavor, to greater effort; if it can preserve and nourish the ideals; if to the faltering and straying it can reach a steadying hand and supply a goodly influence; if to the trembling and fallen it can give strength and encouragement to strive on again and yet again, even though the most recent discoveries in the world of science, or the latest word in medicine, be unheard of and unknown in its meetings, yet has it performed a duty nobly, shown a valid warrant for its existence, and given proof incontrovertible of its efficiency.

As to medical ethics, just a word. Long ago the whole subject was elucidated in words of glittering wisdom, and no amount of paraphrase or explanation can either add to or take away from their intent and meaning: "Do unto others as ye would that they should do unto you."

To the laity a few words and I shall have done. To some of you, it may be, the medical profession stands in the rôle of a necessary evil — at times an angel ministering casually, at times a burden heavily borne. Not infrequently you expect (and rightly so) much of us — occasionally you demand of us the impossible. Like yourselves, we may be gods, but always I fear with feet of clay. Frail, subject to errors, and liable to mistakes, we can prove our consanguinity with the balance of mankind. And yet with all this, I ask in all soberness, where in the history of our species is nobler self-sacrifice, truer altruism, than is daily exhibited by the medical profession? What other calling has with equal ardor toiled to destroy the very conditions that give its members their daily bread? The story of medicine, the development of hygiene and the prevention of disease, is the story of a great warfare waged by a faithful few, often without your aid, sometimes despite your active opposition, against ignorance, vice and ill health. Slowly, silently, sometimes stealthily, has the preliminary work of education been carried on, until to-day we have a right, hard-won and inalienable, to demand of you that you not only hold up our hands in our humanitarian efforts, but that, of your own volition, you push forward, the noble cause of alleviating distress, preventing disease and securing national — nay universal — health. Is it visionary to think that the day may yet come when the whole subject of medicine will be considered a branch of the broader sociology? Do I draw too glowing a picture of the results of the preliminary skirmishes? Come, let us look over a few of the battlefields. Yonder lies smallpox, stricken sorely, waiting doggedly for the final blow which it is in your power to deliver. There is diphtheria prostrate and at the mercy

of its antitoxin. Here is yellow fever moribund, and tuberculosis somewhat winded. And so we might enlarge the list of diseases whose existence is tolerated only through the ignorance and apathy of mankind.

But you are not only the beneficiaries of the medical profession, you are also its benefactors, and as such you have a right to demand the highest possible efficiency in your physicians and in their organizations. How much the doctor may be dependent on his organizations has already been hinted at in this paper; the additional powers and fitness he or she may acquire from medical societies must be apparent to you, so that I do not think you are exceeding the bounds of your rights, or even of your duties, when you demand that your physicians must be active workers in their professional organizations. Thus can you do double service of value — to the individual, and to the profession as a whole.

And here, pausing by the way, let me suggest another way in which you can do double duty. By promptly meeting your monetary obligations to your physicians you may, in addition to succoring the needy, set a noble example for them to follow by doing likewise.

From what I have said, somewhat lamely and weakly, it will be apparent to all that this profession of ours is not a playground or a resting place for idlers. On the contrary, it is the very citadel of unceasing work. Whether or not life be but the flitting across the stage — the passing hastily from dawn to dark — the pursuit of power, pelf or pleasure — or the preparatory school for wider activities, greater usefulness or keener enjoyments in some other phase of existence — it is not now our purpose or province to discuss. One pertinent fact, however, concerning this earthly existence we possess, and that is that we are endowed with certain capabilities, among which is that of work, and in order to secure the most perfect consonance with our environment, and to produce the fullest development of body, mind and character, this capability must be exercised and developed.

So we must catch the spirit of work; we must become imbued with the love of work. We must work, not with the hope of reward continually before us, but simply for the love of work. It is our privilege "to wear out, not rust out." And, I think, our profession is constantly giving proof that, in the main, it has caught this spirit, so much so that to-day the cardiovascular degenerations and decay, which are so often the end-result of unceasing arduous toil, are spoken of as the doctor's disease.

After all has been said, may it not be that the matter of success or non-success (as measured in the popular mind) is a secondary one, and of trivial importance? The vital thing is not how much we do, but how and why we do it. The earnestness and intensity, and the motive of our methods are of more value and significance — at least to ourselves — than the actual accomplishment, and on these will depend whether or not we may be able to say with Stevenson,

"I know what pleasure is, for I have done good work."

BOOK REVIEWS

Collected Papers by the Staff of St. Mary's Hospital (Mayo Clinic) for 1910. Octavo of 633 pages, illustrated. Philadelphia and London: W. B. Saunders Company, 1911. Cloth, $5.50 net.

This volume constitutes the second offering from the staff of St. Mary's Hospital, and we are told in the preface that we may expect a like collection once a year or whenever it seems desirable.

The work is just what its name indicates,—a collection of papers which have been prepared for presentation before various bodies. The subjects discussed are numerous and widely various. There are 28 papers on affections of the alimentary canal, one on hernia, eight on genito-urinary topics, seven on subjects pertaining to the ductless glands, three on those pertaining to the head, neck, and extremities, one on technic and six on general subjects.

It is manifestly impossible to review each paper, but this can be said of them all, they are of a very high order and will well repay careful reading and study.

Brochure on Bacterial Vaccines and Tuberculins. The booklet contains forty-eight pages in addition to cover, and thirteen full-page engravings in colors.

The work is divided into three sections, the first section considering the difference between bacterial vaccines and serums and toxins, the preparation of bacterial vaccines and their therapeutic action, and when serums should be used, and when bacterial vaccines; the second action treats of origin and nature of bacterins, relative merits of stock and autogenous vaccines, opsonic index, together with a description of each, and the best method of their use; the third section is devoted to consideration of tuberculins, with dilution and dose tables, descriptions and illustrations of the various diagnostic tests, etc.

Briefly stated, the booklet is a concise review of the essential facts relating to bacterial-vaccine therapy. Parke, Davis & Co., Detroit, Michigan, will send a copy of this brochure to any physician on request.

The Fourth Physician. A Christmas Story. By Montgomery Pickett, Chicago. Price $1.00. A. C. McClurg & Co., Chicago.

This is an interesting and well-written story, dealing with the unworthy ambitions of a physician who tries to attain success and scientific reputation, based on false premises. The story is well told and contains a reasonable amount of humor and pathos.

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EDITORIALS

PHARMACEUTICAL SOPHISTRY

So long has the profession been impressed, by detail men and otherwise, of the prime necessity of securing sodium salicylate made from the pure oil of wintergreen, that the results of more recent observations along this line will come as a rude shock. A like surprise is in store for it, when it learns that the much-vaunted true oil of wintergreen salicylate of Merrell is now said to be derived largely from oil of birch which wholesales for about one-third the price of the true oil of wintergreen. Since it is now definitely known that the therapeutic value of birch salicylate is fully equal to that of the wintergreen and the toxicity no greater, there can be no possible objection to its use provided the consumer is apprised of the fact that the cost to the manufacturer of the one is about one-third that of the other. We doubt that such information has been forthcoming from the manufacturer.

Furthermore, the unreliability and, indeed, the toxicity of the synthetic salicylic products have been so thoroughly emphasized to us that one has hardly ventured their employment even externally.

Thanks to the Council on Pharmacy and Chemistry of the American Medical Association, we are now beginning to have our eyes opened to a few of the facts concerning this drug, and Waddell has produced the first contribution,[1] from the pharmacologic laboratory of the Medical School of Western Reserve University. The article is prefaced by a very impartial introduction by Torald Sollmann, in which he calls attention to the extreme importance of more definite information concerning the relative merits, and disadvantages as well, of the two products, both from a pharmaceutical and a monetary standpoint, the wholesale price of the "natural" brand being $7.20 per pound as against 45 cents per pound for the cheaper synthetic product. And, as Sollmann well says, if there be no such difference as we have been wont to believe exists, then it would be distinctly worth while to remove this apprehension and to encourage the direct prescribing of what one is more or less likely to obtain in any case.

It was because of the extreme paucity of definite data and literature on the subject that the Council on Pharmacy and Chemistry planned this study and investigation.

In order that a supposedly "natural" salicylate would be true to its name, Prof. J. U. Lloyd consented to supervise the preparation of such a salt from natural oil of birch. As a check to this, a sample of Merrell's product was used because "they have been especially active in sounding the dangers of synthetic salicylates, and should therefore take special pains that these do not contaminate their 'natural' salt." In the desire to obtain a synthetic salt of the poorest grade, two samples of the cheapest quality of sodium salicylate were purchased in Chicago from two different wholesale houses. From Dr. Waddell's experiments it is safe to conclude that there is no difference in the effects or toxicity between the samples examined; the most carefully prepared and most expensive "natural" and the cheapest "synthetic" gave like results.

Dr. Waddell's experiments were made on three widely differing species of animals, cats, rats and rabbits, and it might be urged that the same results would not obtain in man; but it seems fair to conclude that if a toxic impurity were readily present in the synthetic samples, it surely would have manifested its untoward effect on at least one of the species of animals used.

Again, in answer to the query as to whether the results could be extended to all samples of synthetic salicylates, it would seem reasonable to assume that if the cheapest brands were just as good as the "natural," the standard "synthetic" brands should also be good.

However suggestive these experiments may seem, the importance of the subject demands the absolute certainty attained only by an examination of practically all the brands on the market, particularly those to which bad effects have been ascribed, and this investigation Dr. Waddell now has under way. In order that the investigation may be as thorough-going as possible Dr. Waddell requests physicians to send him samples of any salicylates that have produced untoward effects or have given grounds for suspicion.

1. Arch. Int. Med., December, 1911.

HOBBLE-SKIRT MATERIA MEDICA AND ITS IMPROVEMENT

In discussing the "boy scout" movement, General Baden-Powell has compared our educational system with the "hobble-skirt," because both are

ill adapted to their purposes. As it is generally agreed that the prevailing courses in materia medica, which attempt to treat, in the all-too-brief time assigned to the subject, all the drugs of the pharmacopeia and many out of it, have driven the physician to depend on ready-made proprietary mixtures, to the detriment of his calling, these courses may properly be said to be of the "hobble-skirt" kind. The inefficiency of these courses has been generally recognized by medical schools, but little has been done toward improving them because it was feared that graduates would then find it difficult to pass the state board examinations. On the other hand, the examining boards have hesitated to replace the materia medica examination, which requires a smattering of much, by one which would be a real test of the candidate's ability to prescribe properly, because of the fear that such an examination would be criticized as insufficient. Hence these courses, though they have been somewhat improved during recent years, are still not what they should be.

It seems to us that the Council on Pharmacy and Chemistry has now adopted the plan which will result in a thorough reform of materia medica instruction. From a report (*The Journal A. M. A.*, Dec. 9, 1911, p. 1930) it appears that the Council, in response to a number of requests, has undertaken a compilation of a list of the admittedly more important drugs which might serve as a basis for instruction in medical schools and in the preparation of examining questions for license to practice.

In the past a number of tentative lists of this character have been prepared both in the United States and in England. A composite of these was submitted to a large number of teachers of materia medica and therapeutics, to members of state examining boards and to others. Before submitting a list to the Council for final action the Committee asks for still further opinions from active practitioners. The list of the important remedies which thus will be secured should be accepted by teachers and examining boards throughout the United States. If this be done the coming generation of physicians will be deeply indebted to the Council, and the people who depend on this generation of physicians will be benefited no less.

THE TRUTH ABOUT MEDICINES

It is most desirable that physicians should have reliable information in regard to all the medicinal substances which are constantly being placed on the market. This applies equally to the occasional discovery, which is a distinct advance, to the many that are but unessential modifications of previously known articles and to those that are frauds.

Physicians should also be informed regarding the composition of "patent medicines" sold to the public and the claims made for them. Such knowledge will aid them to impress on their patients the harm and danger of self-medication.

Much information of this kind is now being given us, particularly by the A. M. A. Council on Pharmacy and Chemistry and its chemical laboratory. In order that such information may be more readily available, it is proposed to establish in this journal a department to be known as "The Truth about Medicines," in which will be presented in concise form matters pertaining to the identity, reliability and value of medicines. It will include the articles which have been found worthy for "New and Nonofficial Remedies" as well as those which "have been tried and found wanting" and regarding which reports have been published.

THE CONSPIRACY OF SILENCE

[Editorial from The Journal of the American Medical Association, Jan. 6, 1912]

One of the most powerful chapters in the Great American Fraud series was that entitled, "The 'Patent-Medicine' Conspiracy Against the Freedom of the Press,"[1] by Mr. Mark Sullivan. Therein it was shown that the twenty millions or more dollars spent annually by the "patent-medicine" manufacturers of the United States was expended not merely for what went into the newspapers as advertisements, but for what was kept out of the newspapers as news. Stated more baldly, the advertising contract was the price of silence. Nor was this a mere tacit understanding—a "gentlemen's agreement," so to speak—but a part of the advertising contract. As one contract read in part:

> "It is agreed that the J. C. Ayer Co., may cancel this contract, pro rata, . . . in case any matter otherwise detrimental to the J. C. Ayer Co.'s interests is permitted to appear in the reading columns or elsewhere, in this paper."

Would the death of a child due to an overdose of Ayer's Cherry Pectoral be reported in a newspaper that advertised this product? Would the public be warned of the dangers of certain headache remedies by those newspapers that carried advertisements of these deadly medicaments? Hardly. And so a "conspiracy of silence" was

1. We (*The Journal of the American Medical Association*) have a few reprints of this chapter. As long as they last, one will be sent on receipt of a stamped addressed envelope.

maintained and even to-day a large number of newspapers are still so recreant to their trust to the people as to eliminate from all their news any reference that may directly or indirectly injure their advertisers' business. Fortunately for the public a number of weekly and monthly lay magazines have been outspoken in their denunciation of the "patent-medicine" evil and have thrown the light of publicity in the dark places of charlatanry and quackery. Their lead has been followed by some of the more progressive and enlightened newspapers and the work of education goes forward.

So much for the lay press. Exactly the same conditions exist in medical journalism as have obtained in lay journalism. Not altogether the same either. Possibly because the sums of money involved are not as large or for some other reason, the "silence clause," as such, has not, we believe, been brought into use in making advertising contracts with medical journals. But so far as the actual working of the matter is concerned it might as well have been. For although the fraud and chicanery connected with the so-called ethical proprietary business have been repeatedly exposed, practically none[2] of the self-styled independent medical journals have given their readers any information regarding the matter. In the medical field, then, the conspiracy of silence has been just as effective as in the non-medical—and the injury to the public probably almost as great.

The attitude taken by proprietary manufacturers toward free and unrestrained discussion of scientific therapeutics was well illustrated in the protest of the M. J. Breitenbach Company to *The Journal* of the American Medical Association. Briefly, the facts were these: In December, 1904, the government of Porto Rico published a report of its "Commission for the Study and Treatment of Anemia in Porto Rico." This splendid scientific work was commented on editorially in *The Journal,* in the course of which the following statement, based on the findings of the Porto Rico commission, was made:

> "The day of blind reliance on iron, quinin and tonics in general in the treatment of anemic conditions in tropical countries is past, never to return."

Surely a mild and conservative statement of scientific fact; but the M. J. Breitenbach Company thought otherwise. The company, which at that time was advertising its product, Pepto-Mangan, in *The Journal,* wrote as soon as the editorial just referred to appeared, protesting that the editorial sentiments were a direct slap at the company's product. The Breitenbach company further stated that it could not see any advantage in advertising in a journal that would editorially contradict the statements that appeared in its advertising pages. In a way, the company was right. It was inconsistent for *The Journal,* which was exposing mendacity, editorially, to accept the advertisement of a preparation that was sold under mendacious claims. This incident is recalled, however, merely to make evident the uselessness of expecting medical journals whose very existence—in some instances—practically depends on advertising contracts of proprietary manufacturers to tell the truth in their reading pages when such truth is against the interests of their advertisers.

The history of the propaganda against fraudulent proprietary medicines has proved the futility of expecting a free discussion of scientific therapeutics in any case in which proprietary interests are directly or indirectly involved. For example, the widely advertised Anasarcin was shown to be a secret nostrum of the insidious kind—one of those silly, simple mixtures — exploited under false and dangerous claims. These and other damaging facts were detailed at some length in *The Journal,* but so far as we know not a single independent medical journal gave its readers the benefit of this information. The Anasarcin Company is a heavy advertiser!

Tyree's Antoseptic Powder was shown in *The Journal* to be essentially a mixture of zinc sulphate and boric acid, falsely labeled and sold under fraudulently mendacious claims. Was the medical profession given the benefit of this information by the medical press? No, indeed. Tyree advertised liberally and the medical journals were discreetly silent.

An examination of Campho-Phenique by the Council on Pharmacy and Chemistry showed that the product was sold under a fake formula and fraudulent claims and was marketed by a man who was making and selling such products as "Smith's Bile Beans," "Swain's All-Healing Ointment" and several other "patent medicines." Campho-Phenique was exposed in detail in THE JOURNAL—but the exposé was carefully ignored by the hundreds of medical journals that an over-trusting profession believes exists for its benefit. Campho-Phenique is advertised and advertised extensively!

Phenalgin was long advertised (1) as a synthetic, (2) as requiring special skill in its preparation, (3) as having therapeutic value which it did not possess, and (4) as being non-toxic—four definite and inexcusable falsehoods. It was shown in *The Journal* to be a mere acetanilid mixture and the viciousness of its method of exploitation was more than once declared. Was this matter reprinted or abstracted in the so-

2. An exception should be made in this connection to the *Medical World* of Philadelphia. While this journal advertises some preparations that are open to criticism, it has not hesitated to copy our reports even when, in some instances, they reflected on its own advertisments. It should also be said that this criticism does not apply to two other independent journals, the *Cleveland Medical Journal* and the *Southern Medical Journal,* which accept advertisements of only such proprietaries as have been approved by the Council on Pharmacy and Chemistry.

called independent medical journals? Hardly; the makers of this headache cure spend many thousands in advertising!

Papine has long been sold to the medical profession as a peculiarly efficacious and valuable form of opium and as one that would not "create a habit." Examined by the Association's chemists it was reported to be morphin dissolved in a watery-alcoholic solution containing glycerin, flavored to imitate cherry and colored with cochineal. Did the medical press of the country enlighten its readers on this damnably vicious fraud? Not at all; were its half-page advertisements the price of silence?

Antikamnia, one of the most impudent frauds ever foisted on the medical profession, has been repeatedly exposed in *The Journal*. In this instance, the proposition was so rank, the fraud so evident, the deception so transparent that some of the more consistent journals threw out the Antikamnia advertisement. It is still carried, however, by more than fifty American medical journals, ranging from the New York *Medical Record* and the *Annals of Surgery* down. Naturally, the "conspiracy of silence" in favor of the Antikamnia fraud is still maintained.

And so we might go on, naming preparation after preparation that has been proved beyond the peradventure of a doubt to be fraudulent, worthless, dangerous, or all three, and against which the bulk of the medical press of this country has raised no protest, but, on the contrary has, by accepting their advertisements, tacitly endorsed and invested with the badge of presumed respectability. How much longer will the "conspiracy of silence" be maintained? Just so long as an easy-going profession tolerates medical journals whose owners are rendered aphasic by their advertising contracts.

EDITORIAL COMMENT

Before the above appeared in *The Journal of the A. M. A.*, we had put in type some editorial notes expressing similar sentiments concerning the necessity of "cleaning house" in the medical profession. We reproduce the editorial of *The Journal of the A. M. A.* because it is timely and to the point, and because we desire to heartily endorse all that is said. It is up to the rank and file in the medical profession to right this evil which we do not believe anyone with good, sound judgment will dare defend. Religious journals were forced to give up patent medicine advertising, not because of the troubled consciences of the editors, but because readers of intelligence and honesty finally refused to indirectly support deception and fraud and consequently cancelled their subscriptions.

We honestly believe that all of the medical journals carrying objectionable advertising, that really deserve to live because of their scientific or practical value, will live if they adopt the rule to accept nothing but clean and honest advertising. We also believe that reputable and progressive medical men will be all the more willing to support such journals. But every self-respecting physician ought to be interested in purifying medical journalism as much as he is interested in purifying the pages of the lay press, and there is no more effective way in which he can do this than by refusing to contribute to, subscribe for, or to receive gratuitously any medical journal which does not have clean advertising pages. When we make this statement we know that we are, figuratively speaking, throwing stones at a large number of medical journals that, aside from their advertising pages, are most excellent in every particular, and this includes several journals published by state medical associations. So far as the latter are concerned, we have nothing but condemnation, for there is absolutely no excuse for the establishment of a journal by a state medical association except that such journal be edited and conducted on the highest moral plane.

It is no excuse to say that the money is needed, for we appreciate as well as anyone else the need of money in order to keep up a reputable journal, but we refused over three thousand dollars worth of objectionable advertising during the infancy of our periodical, and have continued to refuse such advertising. What we have done, others can do, even if it means a decided lessening of the income. We believe that it would be better to publish no medical journal at all than to publish one any portion of which we would be ashamed of because of the misrepresentation that it presented.

CERVICAL RIBS

Although in 1894, Pilling was able to collect but 139 cases of cervical rib, yet many cases having since been reported, one is led to believe that the condition is probably often allowed to go unrecognized. Indeed, of the 139 cases collected by Pilling only nine had been recognized clinically, and this is not surprising when we consider that less than 10 per cent. of cervical ribs ever give rise to symptoms during life. Recently,[1] however, Miller has reported eight cases detected by him within the preceding sixteen months.

While the knowledge of the existence of this anomaly dates back to the time of Galen, our real information concerning its actual occurrence was

1. Am. Jour. Med. Sc., December, 1911.

brought out by Hunauld in 1742, while Gruber, 1849, published a paper on the subject. Twenty years later he (Gruber) collecter seventy-six cases including the first two cases (Willshire and Huntemüller) recognized in the living. With the advent of radiography the diagnosis was rendered so much more easy and certain that the lesion has been found to be relatively common, Keen having been able, in 1907, to collect forty-two cases that had been operated on.[2]

From an anatomic standpoint it will be remembered that a cervical rib is only an abnormal development of a normal portion of a vertebra in the cervical region, which, in the dorsal region, is represented by a fully developed normal rib, viz., the costal process. Although the commonest location for the development of the supernumerary rib is the seventh cervical, it has been observed springing from the sixth, and even higher in one case (Völcker) and occasionally from the lumbar region adjacent to the dorsal region. The degree of development varies, the imperfectly developed one being much commoner than the completely formed ribs. Gruber's classification of development is as follows: First degree, a very slight increase of the costal process not reaching beyond the true transverse process. Second, a rib protruding beyond the transverse process to a moderate extent and ending either free in the tissues or attached in some way to the first thoracic rib. Third, a still further degree of development in which the cervical rib extends for a considerable distance toward or even to the cartilage of the first thoracic rib, possesses a complete body, and is united directly or by means of a ligament with the cartilage of the first rib. Fourth, a complete cervical rib uniting at the anterior extremity with the cartilage of the first rib through which it reaches the manubrium.

While the condition is bilateral in 80 per cent. of the cases, yet only the larger ordinarily give symptoms and Keen found only two of his forty-two cases giving symptoms on both sides. However, of the eight cases of Miller, seven showed bilateral ribs and two complained of pain in both arms.

Although cervical ribs have been discovered from the sixth month of intra-uterine life up to old age, yet symptoms are rarely manifested before adolescence and often not until much later in life, their inception being dated to a fall or blow.

Among the forty-two cases collected by Keen thirty-one were in females and eleven in males. All of Miller's eight cases were among females.

2. Am. Jour. Med. Sc., 1907, cxxxiii, 173.

Halbertsma believed that if more than 5 cm. long, the rib displaced the subclavian artery as well as the lower cervical nerves. The artery is given a higher arch and a sharper curve, as the chest is lengthened by one rib, thus carrying it above the clavicle into the soft parts of the neck, the vein not being displaced. The scaleni muscles are often attached to the cervical rib instead of the first dorsal, and the pleura is elevated, occasionally rising above the clavicle so that, like the vessels, it may be torn in accident or operations if the anomaly is unrecognized.

The local sign of their presence is a visible or palpable tumor above the clavicle, which can sometimes be followed to the spine. A certain degree of scoliosis is, according to Keen,[3] often present. The high position of the artery has been mistaken for an aneurysm. Sometimes aneurysm actually does exist as a result of bony pressure. Abnormal pulsations above the clavicle point strongly to cervical rib, especially if there be tender nerve trunks in addition.

The most frequent results of the deformity are the nerve phenomena referred to the hand and arm, due to pressure on the roots of the brachial plexus, occasionally amounting to a true neuritis. This more often follows the distribution of the ulnar nerve. Anesthesia or prickling of the extremity and neuralgic pains are frequent; also loss of motor power. The two factors most often responsible for increasing the arm symptoms are work and exposure to cold. Miller credits this persistent intermittent or continuous disturbance in one arm with being the most significant diagnostic symptom of cervical rib, since a simple neuritis rarely continues for years. The cervical sympathetic may show pressure symptoms, also the recurrent laryngeal, producing flushing, ocular disturbance, hoarseness and dysphagia.

Next to nerve disturbance, the most common symptom is interference with the subclavian vessels. The artery may be entirely obstructed and its lumen obliterated. The pulse is then absent in the wrist and the limb very anemic. There have been reported cases in which even the subclavian artery and all branches below it were thrombosed. Collateral circulation must then supply the limb and this is not invariably sufficient, so that dry gangrene from anemia attacks the fingers. This rarely goes above the finger tips. Keen's personal case is an illustration of this phenomenon.

Venous obstruction is very rare and edema is seldom present.

3. Keen's Surgery, iii, 295.

Trophic changes in the arm, atrophy and loss of power correspond in degree to the amount of anesthesia.

A good diagnostic rule promulgated by Miller is to suspect cervical rib in every patient with prolonged brachial neuritis, then confirm or refute the diagnosis by the *x*-rays.

Most cases of cervical rib do not require other treatment than rest and posture. Those showing signs of gangrene or paralysis require the removal of the rib on the offending side. The operation has been uniformly successful both from the standpoint of mortality and ultimate recovery from the morbidity.

EDITORIAL NOTES

We desire to call attention to a few inaccuracies in the County Medical Society Directory, and several blanks in the District Society Directory. If officers of county and district societies will furnish us the required information the directories will be corrected.

If one-tenth of the stories concerning the atrocities practiced by Dr. Doty, health officer for the port of New York, are true, then Governor Dix is not only justified in removing Dr. Doty from office without ceremony, but in insisting that that gentleman shall be properly punished for his misdemeanors. To be guilty of neglect of duty is quite sufficient, but to add to this evidence which is so shocking that it cannot be given to the public, is worthy of severest punishment.

Cases are on record in which people have swallowed, either intentionally or by accident, all kinds of articles that can be swallowed, but we have yet to hear of anyone swallowing a fever thermometer until a correspondent of *The Journal of the A. M. A.* reports such an incident. A patient, while momentarily asleep, swallowed a thermometer. The nurse was afraid to say anything about it, but at the end of thirty-six hours, very much to her delight, the thermometer was passed from the bowels registering 104 F.

In the December number of The Journal, Dr. F. B. Wynn calls attention to the valuable work done by Dr. G. W. H. Kemper in publishing a medical history of Indiana. Our readers will remember that the material collected by Dr. Kemper appeared in The Journal and has since been bound in book form. Dr. Kemper spent a great deal of labor and no little money in preparing this history, and it is to be hoped that the medical profession of Indiana will reimburse him, at least in part, by freely purchasing his book.

Genuine rubies are now actually manufactured and sold by the French factories. These stones are in no wise to be termed imitations, for they are identical physically, chemically and mineralogically with, and indistinguishable by the most expert jewelers from, the native stones. No process has yet succeeded in making diamonds, nor is apparently likely to succeed from the present outlook. This may be of interest to doctors who so generally (?) purchase diamonds, for it would be a pity to have the accumulations from the practice of medicine depreciated by a process whereby diamonds are produced artificially.

Dr. Charles H. Mayo, the noted surgeon, was operated for gangrenous appendicitis about the middle of December. While apparently convalescing he suddenly developed symptoms of gall-stone colic and had to submit to a second operation which, at the time this note is written, has been pronounced eminently satisfactory and the prospects of recovery assured.

Dr. Mayo was on his way from Washington to New York when taken sick, and on arrival at New York was obliged to submit to surgical interference at once. His thousands of friends and admirers all over the country will be pleased to hear that his recovery is assured.

It is quite evident that Evansville has some advertising doctors among those supposedly within the pale of respectability. We have recently received some newspaper clippings from the Evansville daily papers, one of the clippings being a column in length, and all having scare head lines, in which one of the Evansville surgeons receives more advertising and exploitation than one of the regular advertising quack doctors could get in a year by paying for it at advertising rates.

Our scrap book will have to be larger if we file many more such lengthy newspaper accounts of the skill of any of the members of the Indiana State Medical Association.

IN this number of THE JOURNAL we publish reviews of the progress of medicine and surgery in its various branches, and we also start out with several new features which we hope to continue throughout the year. Our department devoted to the work of the Council on Pharmacy and Chemistry should be of especial interest to every physician who appreciates and upholds honesty in the practice of medicine. It will be our purpose to assist in the work of exposing frauds and every species of misrepresentation as it applies to the healing art, and we shall be as free to approve that which is good. Therefore, in our department devoted to "The Truth about Medicines," and in the subdivisions dealing with The Propaganda for Reform, and Facts about Quacks and Medical Humbuggery, our readers will find much that will be interesting and helpful in separating the good from the bad.

FOR many years we have been deluded by the specious claims of interested manufacturers with the thought that the "natural" sodium salicylate was far superior to the synthetic preparation, even though we have long known that therapeutically the synthetic product produced excellent results. Now comes the preliminary report of the Council on Pharmacy and Chemistry in which the statement is made that even the worst of the commercial synthetic products has proved itself as free of defects as the best of the "natural" products. Considering that there is a difference of something like $7 or $8 a pound in the two preparations, the findings of the Council will prove interesting to all those who prescribe the salicylic compounds and will not be appreciated by the manufacturers of the natural products, who tried to have us believe that the synthetic products were positively dangerous as well as therapeutically inefficient.

ONE of our advertisers interested in the standardization of drugs very justly criticizes the members of the medical profession for oversight in requiring the highest quality of preparations dispensed. He says that it is illegal for a druggist to dispense preparations that do not conform to the U. S. P. and N. F. standards on their prescriptions, and yet physicians will purchase and dispense from their offices preparations that do not conform to these requirements. Why is it any less a crime for physicians to dispense inferior products and why should not the physician be punished just as the druggist would be punished if discovered in the act of dispensing drugs of inferior quality? We are quite in sympathy with the argument that is advanced, and we believe that it is high time that dispensing physicians be shown the error of their ways even if it becomes necessary to do so by instituting prosecution.

DR. C. H. CARSON, the Kansas City gentleman who conducts the "Temple of Health" for the "Treatment of Disease by the Vital Science System," was referred to in an editorial in *The Journal of the A. M. A.* of September 30 as a quack, also as a charlatan and a humbug. Dr. Carson reached the conclusion that he had been both libeled and slandered and he demanded satisfaction. In *The Journal of the A. M. A.* of December 9, the original charge was reiterated and *The Journal of the A. M. A.* announces that it will be pleased if necessary to prove its statements in the courts.

The work of *The Journal of the A. M. A.* in exposing medical frauds of every description is worthy of commendation and approval, and it should be a source of satisfaction to know that no exposures are made until the facts are positively known, and that such facts will be proved in court if necessary. However, the usual threat to institute libel proceedings is usually nothing more than a bluff. In fact, ordinarily editors are quite careful to be in possession of indisputable facts before any damaging charges are preferred, and the victim is fully aware of this fact.

NOTWITHSTANDING all that we have said in THE JOURNAL concerning the necessity for the payment of 1912 dues before January 1 in order to take advantage of medical defense from the date that it was put in force, there are some members of the Association who are yet laboring under the delusion that because dues are not actually delinquent until February 1, and that members are in good standing until such date, they are entitled to the medical defense feature. We have pointed out repeatedly that the medical defense feature was adopted by the House of Delegates at the Indianapolis session, and that when it was adopted the provision was made that it should be in force on and after January 1 for any and all members who have paid 1912 dues, but that the medical defense will not apply to those cases based on services rendered prior to January 1, or even prior to the payment of the 1912 dues if such are paid after January 1. In other words, on the payment of the dues the medical defense begins for that member, and for

such suits as may be brought for services rendered after the payment of such dues.

Some of the leading weekly and monthly publications are now carrying advertisements of bankers and brokers who offer bonds for people of small means. There was a time when it was next to impossible to purchase leading stocks or bonds in denominations of less than $5,000 to $25,000. But with an increase in the demand for safe investments as against the "wildcat" investments offered by mining concerns and other questionable enterprises, reputable bankers and brokers have realized that it was profitable to deal in bonds of small denomination which could be sold to the masses, and in consequence we now have listed gilt edged securities available in $100 and $500 amounts.

We call attention to this matter because physicians are known to be inveterate gamblers in mining and other "wildcat" ventures, and very largely for the reason that it has been difficult to find safe investments for small amounts of capital. Therefore, the doctor who really wants a good investment and does not care to take a sound view of the matter and place his money in good real estate or farm mortgages, can find an avenue for his savings by investment in some of the securities of successful corporations.

While the medical profession is making a great hue and cry about patent medicines and quack doctors, and lampooning the editors of newspapers and popular magazines for their selfish attitude in accepting advertising from such perpetrators of fraud, it may not be amiss to look at some of the inconsistent practices on the part of supposedly reputable members of the medical profession. It is our candid opinion that most of us live in glass houses and have no right to throw stones. For instance, what right have we to complain about the advertising carried by newspapers and magazines when we not only tolerate but support medical journals that carry the worst kind of nostrum advertising? What right have we to complain about the people dosing themselves with patent medicines when we prescribe proprietaries about which we know little or nothing, and which usually are misrepresented by the manufacturer? What right have we to complain of the grafting done by the quack doctor when so-called reputable medical men will operate for the sake of the fees, and will not only give or accept the commissions but will actually traffic in the ills of humanity in a manner that would do credit to Captain Kidd? Surely the medical profession needs a house cleaning and the sooner we begin, the better.

In *The Journal of the A. M. A.* under date of December 30, Dr. W. W. Keen, ex-president of the A. M. A., publishes a letter to the medical profession of America in which he forcefully as well as logically gives his reasons for approving the petition to restore the canteen in the United States Army. It is unfortunate that Dr. Keen's letter cannot have wide publication in the lay press so that well-intentioned but misguided individuals who are fighting the bill for the restoration of the canteen might have an opportunity of reading a sensible argument presented by a man who is not only familiar with the medical side of the question but is an avowed temperance advocate.

In *The Journal of the American Medical Association*, December 16, was published in full the petition to Congress to pass the Bartholdt bill restoring the canteen in the Army. The petition explains fully what the canteen really is, and it was signed by 275 of the leading men all over the country. It is earnestly hoped that all medical men who have sound judgment and are interested in the progress of truth and justice, and are not influenced by the ultra-temperance advocates who have been responsible for the abolishment of the canteen and all of the evil results that have followed, will write or wire their congressmen and senators to support the Bartholdt bill.

Secretary Combs has made a statement in one or two letters published in The Journal that some county medical society secretaries are guilty of retaining dues which ought to be sent promptly to the secretary of the State Association. We have recently received a letter from a physician in one of the counties of the state in which he offers evidence to show that he paid his association dues several months ago, and complains because he has not received The Journal. On investigation we find that the dues were held by the county society secretary, and not turned over to Secretary Combs until recently.

Some county secretaries even have the "nerve" to tell a falsehood when asked by members if the dues have been sent to the state association secretary. Fortunately there are only a few county society secretaries who are guilty of the faults of which we complain, but we feel justified in

mentioning the matter for the reason that the editors are frequently unjustly criticized because THE JOURNAL has not been received. Of course it takes a little time for the dues to pass to the hands of the secretary and for the name of the member to go from the county secretary to the state secretary, and from the latter to THE JOURNAL office. Our mailing list is completed on the third, and not later than the fifth of each month, and Secretary Combs holds everything until the first of the month well knowing that we cannot use anything after the first, and that he can just as well send to us at one time all of the names for our mailing list.

A MISSOURI man who died a few years ago, after having made a fortune in mines and mining property, provided for the future of his heirs by making it a condition that if any of the beneficiaries should use the money to buy mining stock or mines, their rights to participate in the estate should cease. Evidently his reasons for insisting that his family should shun the industry that brought him riches were based on the knowledge that most mining stocks do not represent anything definite, and nearly all fail to pay dividends.

In commenting on this subject, the *Review of Reviews* says that financial folks nowadays agree that nearly all of the mining "prospects" really worth while, as soon as they are discovered and passed on by the experts, are acquired by large organizations or business men of means and special experience. A trustworthy financial newspaper instances one large corporation which had no fewer than 600 such propositions offered to it last year. Of that total only two were accepted. The 598 rejected ones have joined the great company of mining prospects "financed" by somebody else, the amateur public at large, the last resort when the professional investor has said "No."

Attention is called to this matter because at the present time certain prominent medical journals are carrying the advertising of companies selling mining stocks which we believe to be practically worthless. The doctor who is wise will steer clear of any such get-rich quick schemes. Show us one doctor who has made even a reasonable income from investment in oil or mining stocks and we will show you a thousand doctors who have lost everything they ever put into stocks of that character.

ON more than one occasion we have called attention to the folly of sacrificing quality of drugs and biologic products for price. We positively know that there are many members of the Indiana State Medical Association who purchase and use the cheapest and most inferior products for the treatment of the sick, and this practice is a serious detriment to the physician as well as to the patient. It can be definitely proved that the most reliable pharmaceutical houses, even when they charge a higher price for their products, are making less profit than is made by unreliable houses that make price the first consideration and quality is sacrificed with a view to making the largest profit.

We are in entire sympathy with the stand taken by some of the largest and most responsible pharmaceutical houses when they emphatically state that they are not only willing but anxious for the Council on Pharmacy and Chemistry to place the stamp of approval or disapproval on all products manufactured. The house that refuses to have its products passed on by the Council is not worthy of the patronage of the medical profession, for it can be definitely stated without fear of contradiction that the houses which object to the work of the Council on Pharmacy and Chemistry are not playing fair. On the other hand, there is absolutely no reason why members of the medical profession should patronize such houses, for as a rule they do not represent integrity and fair dealing. Furthermore, there is absolutely no excuse for the prescribing of any pharmaceutical preparations or biologic products that have not been approved by the Council, for the work of the Council is purely in the interest of honesty in manufacture and honesty in the representation of the products turned out. No reputable firm need have any fear of the Council, for if the representations concerning any product or products are correct, the Council will be sure to give its approval. Of course there may be errors of omission and when so discovered by the Council the firms to whom such omission can be attributed are advised by the Council with the express purpose in view of giving opportunity of making correction. It is only when the corrections are not made and the error is persistently perpetuated that the Council refuses to give its approval and exposes the misrepresentation.

MUCH has been said recently concerning over-education of American youths and apparently there is a growing tendency on the part of educators to pay some attention to the criticisms that have been offered. We are quite in sympathy with a statement recently issued by Henry B.

Savage, of the New York Normal School of Physical Education, in which he says: "The degeneration in morals and vitality occasioned by overeducation does not apply to any particular class, for it has attacked every class, and is an alarming situation that we must face. The fault lies in our educational system, in forcing education on the young. We push children through high school at sixteen, forcing them to stay in school seven and eight hours a day. All the while they have overexerted brains still immature. In the meantime the body has been neglected. The physical defects that might be corrected are overlooked. The result is, with ill-digested matter and a body that has been neglected and allowed to depreciate, we have a most serious situation before us. Each succeeding American generation is poorer physically than the one before it. The remedy for it all is simple living, stopping the crowding of the brain and detecting physical flaws at a period when they may be corrected."

The sooner educators recognize the baneful effects of overwork in our schools and colleges, the better it will be for the physical and mental development of the future children of our country. Childhood and early youth is the time for play and for healthy physical and mental development. It is nothing short of a crime to note the tendency of the times, which cuts off playgrounds from our public schools, increases the hours of confinement in school buildings, and requires long hours of study outside of school in order to become familiar with the assigned lessons of the following day. This deplorable condition is due to not only ignorance on the part of educators as to just how much work they are really crowding on the immature and developing mind, but is also due to the indifference of parents who fear the criticism of educators if complaint is offered, and who are vain enough to want their children to keep abreast of those who are strong physically and mentally and capable of keeping up in the strenuous pace. The deplorable results are recognized usually when it is too late to adopt corrective measures.

There is not the slightest question of doubt that the education of to-day as ordinarily acquired by the average pupil is secured at the expense of health, and many a shattered nervous system is the penalty for a diploma. It is time to call a halt, and the criticisms of our educational system as they concern the health of our children must be given some consideration at the hands of educators. It is impossible to have a strong mind without a strong body, and some of the best educated as well as the brainiest men of the world have never had to follow the death-dealing pace established by present day educators.

In an editorial on "Ethics" in the January number of *The Journal of the Michigan State Medical Society* the work of the Council on Pharmacy and Chemistry of the A. M. A. is praised and attention called to the good that has been accomplished. Then following a question, "Is this work appreciated?" the editor cuts loose with this playful dirge:

> "It is pertinent to ask at this time: Does the medical profession wish this reform to continue? But while it is pertinent to ask this question let us not lose sight of the immense good that has already been accomplished, of the hundreds and thousands of doctors who are not using proprietaries not approved by the Council on Pharmacy and Chemistry. Let us not lose sight of the scores of proprietaries which have been driven into a certain class of medical journals. Last but not least, let us not lose sight of the fact that many of our foremost lights in medicine are, both by subscription and by contributions of scientific papers, supporting some of the journals which are among the worst offenders in the way of their advertising pages; but, while not losing sight of this latter fact, *let us remember it to condemn the practice*."—[Italics ours.]

That looks well (?) in a medical journal carrying some of the rotten advertising which the editor seems to condemn. It reminds us of an editorial on "The Evils of Patent Medicines" which we once saw in a religious weekly and in an adjoining column to that occupied by the editorial were the mocking announcements of Pernna, Hostetters' Bitters and a few other "bracers" that presumably had a large sale among the misguided readers of that hypocritical religious sheet.

The members of the Michigan State Medical Society should be ashamed of the advertising pages of their journal. It is quite true, as stated by their editor, that Michigan was one of the states making a request for a Council on Pharmacy and Chemistry, but how much encouragement and support has the Council received from Michigan? Echo answers "none." Instead, the journal established by the Michigan State Medical Society has from its inception until the present date carried advertising which is not only a blot on the fair name of the society, but is a direct slap at the work of the Council on Pharmacy and Chemistry.

The plea that the money received from objectionable advertising is needed will not hold good, for tainted money should not enter into the support of a medical journal owned and published

by a reputable medical society. And besides, the members of the Michigan State Medical Society pay $2 for their journal and the income from that source, coupled with the income from decent advertising, should be sufficient to pay the expenses of publication. The members of the Indiana State Medical Association pay 75 cents for their journal and they get a larger journal, and one with advertising pages that will come up to an ethical standard as high as that followed by any medical journal. We started right and we propose to keep right. When we cannot do that we shall go out of business. The Michigan State Medical Society, with a membership as large as that of Indiana, can offer no logical excuse for not occupying as high an ethical plane in the conduct of its medical journal as that of the Indiana or any other state medical society in the country. At all events *The Journal* of the Michigan State Medical Society should clean up its advertising pages before asking its readers to support the Council on Pharmacy and Chemistry in its splendid work of exposing some of the misrepresentations and frauds that have been advertised in that journal.

NOTICE TO COUNTY MEDICAL SOCIETY SECRETARIES: 1. You will be asked many questions about the medical defense feature of the Indiana State Medical Association, and it will be well for you to be thoroughly familiar with every detail of the rules governing it. In the September number of THE JOURNAL (page 386) you will find the first ten articles and in the October number of THE JOURNAL (page 449) you will find articles 11-16 as adopted by the Association at the Indianapolis session. The best plan will be for you, right now before you forget it, to make a copy of the sixteen articles as adopted and carry it in your pocket. You should note the fact that the local committee to decide the question of medical defense for any of your members shall consist of the president and secretary of your society and a third member to be nominated by the defendant. Call attention to the fact that the word "immediately" concerning a threatened suit is a very important word, and that the defendant and the local committee should lose no time in communication with the committee of the State Association.

2. Remember that medical defense by the Indiana State Medical Association for any member is operative only after the dues of the member reach this office and only for suits based on services rendered after the payment of dues. If you collect the dues and fail to send them to me promptly you are defrauding that member of medical defense benefits and it might get you into very serious difficulties.

3. Remind your members that they should not send their dues directly to the State Association secretary, as dues cannot be received except through the county medical society.

4. You are not permitted to prorate the state dues in any manner. The State Association dues are $2 irrespective of how the money is distributed. If any doctor does not want to support the various enterprises of the Association he should not join the Association.

5. Resolve to have your county society represented oftener in the county society proceedings in THE JOURNAL. In the index (page 547) of the December number of THE JOURNAL you will note that only thirty-three county medical societies in the state had any notice whatever during the year 1911, and it would appear that most of that number had held but one or two meetings during the year. Do not hesitate to briefly report your meetings because your papers and discussions are not as scholarly as those from some of the larger societies. The other societies do not read your society proceedings, but your own members will. It is a means of reminding the non-attending members of your society that you are still holding meetings. If you are not capable of reporting your meetings then appoint someone to do it for you, and remember that your copy must be in the hands of the editor of THE JOURNAL before the first of the month in order to insure its appearance in the current number of THE JOURNAL.

6. There are eligible non-members in your county that ought to belong to your society. If you cannot get their applications yourself, then appoint a Booster Committee of three live members, who will be satisfied only when every eligible physician in your county is a member of your society. The total number of members for 1911 was 2,468, which was about 100 less than we had in 1910. The year 1912 will be a disappointment if we do not have 3,000 members. There are 2,000 other doctors in the state who should belong to our Association. Will you contribute your share in trying to secure a larger memberhip?

7. You will notice in this issue of THE JOURNAL that we are able to report a large number of members who paid their dues early. In fact, at the time of writing this note, January 4, we have over 1,000 more members who have paid the advance dues than we had on the correspond-

ing date of last year. This is a very hopeful sign and simply demonstrates the force of the argument, which we have used so often, that if sufficiently urged, members will just as soon pay their dues early and get all the benefits as to wait until the end of the year and then have to pay them anyway. The county society whose members are listed in this issue constitute an honor roll, and their secretaries are hereby commended for promptness in remitting the dues. Later in the year there will be published another roll of honor of those county societies whose secretaries have made an increase in the membership in their respective societies over what they had in 1911.

Charles N. Combs, Secretary,
Indiana State Medical Association.

CORRESPONDENCE

THE WORK OF THE ASSOCIATION

SOME SUGGESTIONS FROM THE PRESIDENT

Hammond, Ind., Jan. 1, 1912.

To the Editor: The beginning of the year is usually a time of "stock-taking," and possibly it would not be amiss for us to give a little attention, at this time, to the affairs of the Indiana State Medical Association.

At our last annual session, the House of Delegates authorized the formation of a new section devoted to the eye, ear, nose and throat, so that we now have three separate sections in our Association, the medical, the surgical and the new section just mentioned. While the president and vice-presidents are doubtless expected to preside at the meetings of these sections, no action has been taken to procure secretaries for them. The general secretary of the Association has much to do while the Association is in session, and in addition to other duties must be present at the meetings of the House of Delegates, general meetings and meetings of the Council; and it is accordingly out of the bounds of reason to expect him to provide assistants to act during regular meetings. I think each section should be authorized to select a secretary for its special meetings. In addition each section should be provided with a blackboard on which should be plainly written the name of the member addressing the section, either as essayist or discussant. In the past many of the discussions have been marred, and even lost, because of the inability of the stenographer to credit them properly.

This year I appointed a Committee on Medical Research and Postgraduate Work. Their report will be submitted at a general meeting at the next session of the Association, and it is my hope that the House of Delegates will authorize the annual appointment of such a committee. Much good may be accomplished and much useful information classified and disseminated by means of this committee. The general practitioner has neither the time nor the opportunity to keep posted on the research work being done, either at home or abroad, and it is with a view to furnishing a concise résumé of this work to our members that I have appointed this committee.

As a means toward facilitating and conducting properly the business of the House of Delegates which, by the way, seems to increase with each session, it is essential that the committee on credentials be present early to examine and verify the credentials of each delegate. It has happened heretofore that members, other than the accredited delegates from the county societies, have exercised the voting privilege in the House of Delegates. This is neither business-like nor just, and no momentary enthusiasm can warrant such irregularity. Let us see to it that the business affairs of our Association, and especially that portion of a legislative character, are conducted with the decorum and dignity befitting an organization such as ours.

It is to be hoped too that every county secretary will make a strenuous effort to comply with the rules concerning the payment of dues. The corollary of this is that the most important office in our medical societies is that of secretary, and that great care should be exercised in selecting this officer. On the efficiency of the secretary depends not only the activity and usefulness of the local society, but the welfare of the State Association as well.

To-day the Indiana State Medical Association stands for greater things than ever before in its history. Its range of activity is wider, and the benefits to be derived from membership in it more obvious, than in the past. It speaks unequivocally in favor of the highest type of education, both preliminary and medical; it condemns, and vigorously combats those forms of vice and disease that tend to sap the vitality of the nation, and which are so often preventable or controllable; and it has taken a stand against the economic indolence and guilt that permits our country year by year to sacrifice thousands on the altar of preventable diseases. With each year its duties and its efforts (and, let us hope, its accomplishments) will become more and more

extended. It should therefore be our earnest and constant endeavor to increase the membership by every legitimate means, and there should be no slackening of our efforts in this respect until every reputable physician in the state is enrolled.

Let us hope for a very successful year in Association affairs, and by united and effective effort make certain this result.

Yours very sincerely,

W. F. Howat.

THE TRUTH ABOUT MEDICINES

This department presents, in concise form, facts about the composition, quality and value of medicines. Under "Reliable Medicines" appear brief descriptions of the articles found eligible by the A. M. A. Council on Pharmacy and Chemistry for inclusion with "New and Nonofficial Remedies." Under "Reform in Medicines" appear matters tending toward honesty in medicines and rational therapeutics, particularly the reports of the A. M. A. Council on Pharmacy and Chemistry and of the Chemical Laboratory.

[The text on which these abstracts are based may be obtained from the American Medical Association, 535 Dearborn Avenue, Chicago.]

RELIABLE MEDICINES

Articles found eligible by the Council on Pharmacy and Chemistry for inclusion with "New and Nonofficial Remedies."

Crurin Purum is quinolin-bismuth sulphocyanate approximately $(C_9H_7N.HSCN)_3Bi(SCN)_3$. It is a fine, brick-red crystalline powder, with a slight odor of quinolin, insoluble in alcohol and ether. It is decomposed by water. It is said to be an antiseptic and antigonorrheic. Used topically in gonorrhea, leg ulcers, etc. Kalle & Co., Inc., New York (*Jour. A. M. A.*, Dec. 2, 1911, p. 1838).

Crurin Dusting Powder is a mixture of crurin purum and starch in equal parts. Kalle & Co., Inc., New York (*Jour. A. M. A.*, Dec. 2, 1911, p. 1838.

Ciose is a water-soluble beef protein containing 83 to 85 per cent. actual protein. Occurs in light yellowish-white scales, easily soluble in water. Ciose is designed to augment the protein of any desired diet. It may be added to soups, cereals, vegetables, given in wine or hot water with salt or condiments. Fairchild Bros. & Foster, New York (*Jour. A. M. A.*, Dec. 23, 1911, p. 2083).

Enemose is a liquid containing nitrogenous substances from beef and wheat, carbohydrates from wheat and phosphate in a non-coagulable, diffusible and assimilable form. It is designed for colonic alimentation. It is made ready for injection by dissolving 1 volume (a 1-ounce vial) to 4 volumes (ounces) of water. Fairchild Bros. & Foster, New York (*Jour. A. M. A.*, Dec. 23, 1911, p. 2083).

Digalen Tablets represent one-half c.c. (8 minims) digalen each. Digalen is described in "N. N. R., 1911." Hoffmann-LaRoche Chemical Works, New York ((*Jour. A. M. A.*, Dec. 23, 1911, p. 2083).

REFORM IN MEDICINES

Sulphume, a nostrum sold by the Sulphume Company, Boston, is, according to a report of the A. M. A. Chemical Laboratory, a solution of calcium sulphid such as is obtained when sulphur, lime and water are boiled together. The solution is a rich golden yellow and has the disgusting odor of hydrogen sulphid. Its favorable reception as a "patent medicine" appears to depend on the old idea that anything that is nasty in taste or odor must be "powerfully good medicine." (*Jour. A. M. A.*, Dec. 2, 1911, p. 1853).

Tiz, exploited by Walter Luther Dodge & Co., Chicago, was analyzed by the A. M. A. Chemical Laboratory and found to consist of tablets which contain as essential constituents, alum, tannic acid and salicylic acid. The tablets, dissolved in water, are said to "be good for sore feet." The usual exaggerated and unwarranted claims are made for this well-known astringent combination of doubtful value (*Jour. A. M. A.*, Dec. 2, 1911, p. 1853).

Important Drugs.—A committee of the Council on Pharmacy and Chemistry reports in regard to the compilation of a list of the more important and useful drugs. With a view of making materia medica instruction more efficient it is proposed that teachers and examiners limit their instruction to the more useful drugs. (*Jour. A. M. A.*, Dec. 9, 1911, p. 1930).

C. H. Carson, Quack.—Some sworn testimony regarding the professional and educational qualifications of this quack are furnished. "Dr." Carson, of Kansas City, conducts the "Temple of Health" for the "Treatment of Disease by the Vital Science System." He defrauds the sick and suffering by selling them slips of tissue paper which by application are supposed to bring about marvelous cures (*Jour. A. M. A.*, Dec. 9, 1911, p. 1930).

Medical Journals and the Great American Fraud.—*The Journal A. M. A.* points out that leading members of the profession are contributors to medical journals whose advertising pages are full of pharmaceutical frauds and humbugs and that because of these contributions these journals are widely read. Because of this support those high in the profession are held responsible for the existence of proprietary frauds (*Jour. A. M. A.*, Dec. 16, 1911, pp. 2000, 2013).

The Alcohol Content of Elixirs.—The needlessly high alcohol content of elixirs was discussed at a meeting of the Washington branch of the American Pharmaceutical Association. The branch regards with disfavor the continuance, in the National Formulary, of preparations that can be used as tipples (*Jour. A. M. A.*, Dec. 16, 1911, p. 2013).

The DeBarthe Treatment for Rheumatism.—This appears to be a side issue of the Neal Institute which exploits a "three-day liquor cure." DeBarthe is not a physician. Still he appears to practice medicine and even to occasionally sign death certificates (*Jour. A. M. A.*, Dec. 16, 1911, p. 2014).

Proprietaries — Fraudulent and Otherwise.—An editorial in *The Journal A. M. A.* discusses the distinction between nostrums and the articles accepted by the Council on Pharmacy and Chemistry. The latter have been found to have some presumable value and to be truthfully advertised. Most proprietaries not accepted have been found to be either fraudulent, worthless or exploited under false claims (*Jour. A. M. A.*, Dec. 23, 1911, p. 2087).

The National League for Medical Freedom.—An editorial on the National League for Medical Freedom, which opposes public health measures, gives an insight into the aims and motives of those most prominent in the league (*Jour. A. M. A.*, Dec. 23, 1911, p. 2091).

Nostrums Exposed in North Dakota.—Professor Ladd reports on the composition of the following nostrums and condemns them: Toris Compound, Dr. Greene's Improved Compound of Sarsaparilla, Pape's Cold Compound, Calocide Compound, Eilert's Extract of Tar and Wild Cherry and Red Raven (*Jour. A. M. A.*, Dec. 23, 1911, p. 2097).

Radium Teas, one of the latest Paris fads (or fakes) appears to be the exposure to radium emanation while drinking tea or playing whist (*Jour. A. M. A.*, Dec. 23, 1911, p. 2098).

Oxidaze Tablets.—While formerly exploited to the medical profession, oxidaze is now advertised to the public as a "consumption cure." An examination, in the A. M. A. Chemical Laboratory, of the stuff as it is now sold, shows the tablets to consist essentially of sugar containing a small amount of volatile oils, starch and a trace of potassium iodid (*Jour. A. M. A.*, Dec. 30, 1911, p. 2154).

Natural vs. Synthetic Sodium Salicylate.—The Council on Pharmacy and Chemistry proposes to make a thorough study, chemical, pharmacologic and clinical, regarding the asserted difference in action of "natural" and "synthetic" sodium salicylate. The present contribution is a general discussion by Torald Sollmann and a pharmacologic study by J. A. Waddell. Sollmann outlines the claims of superiority made for the "natural" kind and shows that the evidence is most meagre and not applicable to the product now available. The pharmacologic experiments made on rats, cats and rabbits show no difference in action between the "natural" and "synthetic" (*Archives of Internal Medicine*, Dec. 15, 1911, p. 784).

By Alopecia

Dr. Lafayette Dell has had the same office across from the depot at Halyard, Ind., for thirty-three years without a street number. The other day he tacked 606 on the door. Lafe is a slick 'un.

Dr. Tanger of Sissioville has asked the hardware store to give him a Buck's extension on his note. Doc allows that his leg has been pulled.

Dr. Willy Flier has located at Defi, Ind. He has not definitely decided whether he will remain, as the Ladies' Sewing Club has not met since his arrival.

Dr. Caesar Younger, brother of Cole Younger, has been reappointed deacon of the

Centerbury Methodist church. This is his tenth year of passing the collection box, and hopes are expressed that the church debt will be paid soon. Dr. Younger has only one arm.

AMOS TULLY, for twenty years leading veterinary surgeon at Mossbach, has bought a half interest in a garage.

THE Jensen County Medical Society met last night at McNallyville, in the Masons' hall. Dr. Fortner, the president, read a paper on "Advice from Interns." He claimed to have gained much accurate knowledge, during the time he had Asa Whitney's hernia operation done in Indianapolis, from talks with the hospital interns. He advised all who could do so not to neglect visiting the hospitals and meeting the interns. He gave some names and addresses for those who could not leave home. Dr. Fortner exhibited a Bush & Lung microscope and six Grams of stain. He said he had sent for a man from the instrument house to show him how to use it. The paper was not discussed excepting in low tones by two new doctors who sat in the rear of the hall, and the rest of the evening was spent in getting acquainted. For the first time since the Jensen County Society was organized, tobacco chewing has been forbidden during meetings. The next meeting will be held July 3, 1912, at the county fair grounds, and a full attendance is expected as the Jensen County annual Poland China Pig Show is to be held at the same place on that date.

DR. JAMES HUGGINS, 3 miles south of Swammstown, has retired and will farm his 160-acre place which formerly belonged to Widow Tuttle, whose long suffering and death have been greatly deplored by her neighbors. Dr. Huggins gave as his reason for retiring that the pharmaceutical house with which he had done business for the last thirty-three years has broken up. Doc's drug supply was very low at the time the firm went under, and as he has ordered from their labels and by number for years past he decided that it was cheaper to farm than to take postgraduate work.

AT a meeting of the Givings Valley County Medical Society, December 12, Dr. Dover reported two deaths following the use of "606" by the Murphy method. Dr. Dover advises against "606," as this is the third typhoid case he has lost in using the remedy.

DR. B. B. SHOT, Cummingsburg, Ky., has reported a case of immaculate conception!

DR. EDDIE POPE has located at Pewee Hill, Ind., and yesterday wired all the pharmaceutical houses to send him samples.

ANDREW T. FLUSTER, M.D., sent a dog's head to the State Laboratory and is considerably puzzled over the report, which says Negri bodies were found in the animal's brain. Fluster lives in Linton and says there hasn't been a negro in Linton for over five years. (Apologies to A. T. C.).

TO ANXIOUS CORRESPONDENT: Yes, a dermatologist is a skin doctor, but we do not mean that he will skin you. All skin doctors are not dermatologists. We hope we make it clear to you.

DEATHS

DR. GEORGE MCMANIS DAKIN, aged 84, died at his home in LaPorte, December 21.

DR. O. E. MADDOX of Rockville died following a long illness from ptomain poisoning.

DR. J. F. ADAMS, aged 69, died January 3 at his home in Winchester, following a short illness.

MRS. CYNTHIA A. GROVE, aged 68, widow of Dr. James M. Grove, died of heart disease at her home in Tipton, January 3.

DR. JOHN H. S. REILEY, aged 64, one of the oldest medical practitioners in Decatur County, died at his home in Sardinia, December 27.

DR. DAVID H. COMBS died at his home in Charlestown, Dec. 8, 1911, aged 41 years, following a long illness from diabetes. He was born in 1870. Dr. Combs was a member of the Clark County Medical Society.

Dr. Charles M. Branch, the oldest physician in Madison County, died at his home in Anderson, December 9, following a stroke of paralysis. He was born in New York in 1820, and had lived in Indiana for more than fifty years. He represented Madison County in the Indiana legislature in 1884.

Dr. W. McVey Wright died December 22 at the Central Hospital for the Insane, Indianapolis, where he had been an inmate for four years. His illness dated from a stroke of paralysis nine years ago, thought to be due to an infection incurred when, as superintendent of the city hospital, he was performing a surgical operation. He recovered from the first stroke after several months, and returned to an office practice with Dr. Frank A. Morrison, continuing for about two years when he suffered a second stroke under which his mind gave way. He was 48 years of age.

NEWS, NOTES AND COMMENTS

Dr. F. A. McGrew of LaPorte has gone west for the winter, and will spend a few months in Colorado.

Dr. W. F. Baker, formerly of Rossville, has recently removed to 222 Hendricks Place, Indianapolis.

Dr. H. A. Moore removed his office to Suite 521, Hume-Mansur Building, Indianapolis, the first of the year.

Dr. David F. Berry of Indianapolis has announced the removal of his office to 710 Hume-Mansur Building.

Dr. A. L. Marshall has recently been appointed superintendent of the Deaconess Hospital, Indianapolis.

Dr. W. S. Tomlin has recently moved into his new office rooms, in Suite 520, Hume-Mansur Building, Indianapolis.

The Laboratory of Pathology of Indiana University School of Medicine has reopened for the reception of pathologic specimens for free examination from Indiana physicians. The laboratory is now located at the Medical School in Indianapolis, and is under the direction of Dr. H. R. Alburger.

Dr. Frederick R. Charlton moved into his office in the Hume-Mansur Building, Indianapolis, the first of the year.

Dr. and Mrs. James D. Irwin of Corydon celebrated the sixty-seventh anniversary of their marriage, December 18.

Dr. H. K. Bonn, Indianapolis, has recently moved his office to the Joseph Eastman Hospital, 331 North Delaware Street.

Dr. W. A. Hollis of Hartford City is doing postgraduate work at the New York Postgraduate Medical School and Hospital.

The annual banquet of Indiana University alumni was held at the Denison Hotel, Thursday evening, December 28, at 7:30 o'clock.

Drs. William N. Wishard and H. G. Hamer have recently moved to their new offices in the Hume-Mansur Building, Indianapolis.

Drs. A. B. Graham and George J. Cook moved into their new office rooms in Suite 708, Hume-Mansur Building, Indianapolis, January 1.

Dr. Earl E. Johnson, a graduate of the Hahnemann Medical School, Kansas City, Mo., has recently located in West Lebanon for the practice of medicine.

Public utilities as they affect health will be the theme of many discussions on the annual program of the Indiana Sanitary and Water-Supply Association at its annual meeting in Indianapolis, February 16-17. Among the speakers on the program will be Dr. Harvey W. Wiley, Dr. W. A. Evans, former health commissioner of Chicago, Dr. Henry Jameson and Dr. J. N. Hurty.

Since December 1, the following articles have been accepted by the Council on Pharmacy and

Chemistry of the A. M. A. for New and Non-official Remedies:

Ciose (Fairchild Bros. & Foster).
Bacillary Milk (Fairchild Bros. & Foster).
Lactampoule (Fairchild Bros. & Foster).
Propaesin (Parmele Pharmacal Co.).
Dextri-Maltose (Mead, Johnson & Co.).
Enemose (Fairchild Bros. & Foster).

DR. J. N. HURTY, secretary of the state board of health, was elected president of the American Public Health Association, at its meeting in Havana, Cuba, December 9. The office of president of the American Public Health Association is always regarded as a great honor, but it is of added importance this year because of the International Congress of Hygiene and Demography to be held in Washington next September. Dr. Hurty, as head of the most important public health organization in the world, will take an important part in the congress.

THE regular meeting of the Noble County Medical Society was held in Ligonier, January 2. The program consisted of the following papers and discussions: "The Clinical Value of Blood-Pressure Examinations," W. F. Howat, Hammond; discussion, B. Van Sweringen, Fort Wayne; W. T. Green, Albion, and J. H. Nye, Cromwell; "Bacterine Therapy," E. A. Ish, LaOtto; discussion, A. G. Coyner, Kendallville; B. Pulskamp, Rome City, and Don Johnston, Kendalle; "Syphilis, Its History and Treatment," F. W. Black, Ligonier; discussion, J. L. Gilbert, Kendallville; J. W. C. Scott, Columbia City, and J. E. Luckey, Wolf Lake; five-minute talk on "Things New and Old in Our Relation with the State Board of Health," J. W. Morr, Albion.

SOCIETY PROCEEDINGS

STATE ASSOCIATION MEMBERSHIP

BALANCE OF 1911 LIST

No.	Name and Address	County Society
2462	Z. W. Beaman, No. Manchester	Wabash
2463	E. J. Schott, Terre Haute	Vigo
2464	M. B. Van Cleave, Terre Haute	Vigo
2465	S. D. Weir, Terre Haute	Vigo
2466	M. A. Farver, Middlebury	Elkhart
2467	E. D. Jewett, Rushville	Rush
2468	I. P. English, Terre Haute	Vigo

A complete list of those who have paid Association dues for 1912 will be published in this and succeeding numbers of THE JOURNAL. The number before each name indicates the number of the membership card issued by Secretary Combs. The list published below includes only those whose dues were received up to January 1. Errors in name or address should be reported to Secretary Combs, giving number of the membership card to facilitate prompt detection of the error on the membership records. The list as published constitutes the mailing list of THE JOURNAL, and any member whose name appears upon the published list and who does not receive his journal is requested to write for a duplicate copy.

No.	Name and Address	County Society
1	W. H. Short, LaGrange	LaGrange
2	A. R. Wyatt, LaGrange	LaGrange
3	A. J. Hostettler, LaGrange	LaGrange
4	D. W. Dryer, LaGrange	LaGrange
5	Frank Wade, Howe	LaGrange
6	A. A. Wade, Howe	LaGrange
7	Geo. R. Leonard, So. Milford	LaGrange
8	J. H. Foster, Wolcottville	LaGrange
9	J. E. Wright, Cambridge City	Wayne
10	J. N. Study, Cambridge City	Wayne
11	R. R. Hopkins, Richmond	Wayne
12	G. B. Hunt, Richmond	Wayne
13	T. H. Davis, Richmond	Wayne
14.	A. L. Bramkamp, Richmond	Wayne
15	Chas. Marvel, Richmond	Wayne
16	W. T. Griffiths, Fountain City	Wayne
17	Virl Griffis, Williamsburg	Wayne
18	J. E. King, Richmond	Wayne
19	J. M. Wampler, Richmond	Wayne
20	A. L. Loop, Economy	Wayne
21	M. F. Johnston, Richmond	Wayne
22	C. S. Bond, Richmond	Wayne
23	R. D. Morrow, Richmond	Wayne
24	S. C. Markley, Richmond	Wayne
25	M. W. Yencer, Richmond	Wayne
26	R. J. Pierce, Richmond	Wayne
27	J. M. Thurston, Richmond	Wayne
28	Mary Wickens, East Haven	Wayne
29	S. E. Bond, Richmond	Wayne
30	J. C. Blossom, Richmond	Wayne
31	W. J. Molloy, Muncie	Delaware
32	C. G. Rea, Muncie	Delaware
33	I. N. Trent, Muncie	Delaware
34	H. R. Spickermon, Muncie	Delaware
35	L. L. Ball, Muncie	Delaware
36	H. S. Bowles, Muncie	Delaware
37	G. W. Bucklin, Muncie	Delaware
38	H. P. Franks, Muncie	Delaware
39	Chas. Frazer, Muncie	Delaware
40	A. T. Kemper, Muncie	Delaware
41	G. W. H. Kemper, Muncie	Delaware
42	U. G. Poland, Muncie	Delaware
43	J. M. Quick, Muncie	Delaware
44	C. W. Smith, Muncie	Delaware
45	C. J. Stover, Eaton	Delaware
46	A. E. Vinton, Muncie	Delaware
47	G. R. Green, Muncie	Delaware
48	E. S. Green, Muncie	Delaware
49	D. M. Green, Muncie	Delaware
50	H. D. Fair, Muncie	Delaware
51	E. B. Mann, Muncie	Delaware
52	F. N. Williams, Tell City	Perry
53	W. J. Hargis, Tell City	Perry
54	H. S. Dome, Tell City	Perry
55	D. C. Dome, Troy	Perry
56	E. R. Snyder, Troy	Perry
57	Walter J. Cluthe, Tell City	Perry
58	J. E. Taylor, Leopold	Perry
59	Wm. H. Muelchi, Tell City	Perry
60	M. F. Wedding, Cannelton	Perry
61	D. S. Connor, Cannelton	Perry
62	J. H. Lee, Rome	Perry
63	A. L. Mayfield, Bristow	Perry

No.	Name and Address	County Society
64	E. R. Beard, Liberty	Union
65	Franklin T. DuBois, Liberty	Union
66	Garrett Pigman, Liberty	Union
67	H. M. Egolf, Liberty	Union
68	J. E. Morris, Liberty	Union
69	W. A. Thompson, Liberty	Union
70	W. H. Hawley, College Corner	Union
71	C. G. Beckett, Attica	Fountain-Warren
72	F. W. Kelsey, Attica	Fountain-Warren
73	F. H. Pugh, Williamsport	Fountain-Warren
74	Fred S. Cuthbert, Kingman	Fountain-Warren
75	Geo. S. Porter, Williamsport	Fountain-Warren
76	Geo. Rowland, Covington	Fountain-Warren
77	E. W. Kirk, Veedersburg	Fountain-Warren
78	A. L. Spinning, Covington	Fountain-Warren
79	A. L. Ratcliff, Kingman	Fountain-Warren
80	A. M. Sullivan, Attica	Fountain-Warren
81	J. R. Burlington, Attica	Fountain-Warren
82	A. F. Shoaf, Veedersburg	Fountain-Warren
83	L. A. Bolling, Kramer	Fountain-Warren
84	W. H. Dinsmore, Kramer	Fountain-Warren
85	C. C. Wert, Kingman	Fountain-Warren
86	C. M. Coggins, Covington	Fountain-Warren
87	O. O. Melton, Kramer	Fountain-Warren
88	Richard Stephenson, West Lebanon	Fountain-Warren
89	C. L. Myers, Covington	Fountain-Warren
90	C. E. Caylor, Pennville	Jay
91	Samuel Mason, Pennville	Jay
92	F. M. Perkins, Pennville	Jay
93	J. B. Garber, Dunkirk	Jay
94	E. C. Garber, Dunkirk	Jay
95	W. H. Markley, Red Key	Jay
96	J. E. Nixon, Portland	Jay
97	C. W. Mackey, Portland	Jay
98	R. E. Brokaw, Portland	Jay
99	J. T. Dickes, Portland	Jay
100	W. D. Schwartz, Portland	Jay
101	Grant Chaney, Portland	Jay
102	G. L. Perry, Portland	Jay
103	I. G. Sims, Portland	Jay
104	M. T. Jay, Portland	Jay
105	Austin Funk, Jeffersonville	Clark
106	O. P. Graham, Jeffersonville	Clark
107	E. N. Flynn, Jeffersonville	Clark
108	David Cohen, Jeffersonville	Clark
109	H. S. Murat, Jeffersonville	Clark
110	David C. Peyton, Jeffersonville	Clark
111	Marshall Varble, Jeffersonville	Clark
112	J. M. Howes, Sellersburg	Clark
113	C. E. C. Hancock, Jeffersonville	Clark
114	W. H. Crum, Jeffersonville	Clark
115	Frank M. Johnson, Utica	Clark
116	I. J. Ruddell, Jeffersonville	Clark
117	W. O. Hildebrandt, Topeka	LaGrange
118	W. R. Boggs, Salem	Washington
119	R. J. Wilson, Salem	Washington
120	J. M. Vanderburg, Albany	Delaware
121	W. M. A. Hobday, Goldfield, Nev.	Clark
122	F. W. Black, Ligonier	Noble
123	W. F. Carver, Albion	Noble
124	F. R. Clapp, Ligonier	Noble
125	A. G. Coyner, Kendallville	Noble
126	W. H. Franks, Ligonier	Noble
127	O. P. Franks, Churubusco	Noble
128	C. B. Goodwin, Kendallville	Noble
129	C. A. Gardener, Kendallville	Noble
130	J. L. Gilbert, Kendallville	Noble
131	W. T. Green, Albion	Noble
132	J. W. Hays, Albion	Noble
133	W. H. Hays Albion	Noble
134	E. A. Ish, Laotto	Noble
135	Don Johnston, Kendallville	Noble
136	H. O. King, Kendallville	Noble
137	S. W. Lemmon, Albion	Noble
138	Carlos Lane, Kimmell	Noble
139	J. E. Luckey, Wolf Lake	Noble
140	F. C. Maloney, Avilla	Noble
141	B. E. Miller, Albion	Noble
142	J. W. Morr, Albion	Noble
143	J. H. Nye, Cromwell	Noble
144	B. Pulskamp, Rome City	Noble
145	N. J. Shook, Kendallville	Noble
146	W. A. Shobe, Ligonier	Noble
147	C. A. Seymour, Wawaka	Noble
148	H. G. Tucker, Cromwell	Noble
149	W. M. Yeasey, Avilla	Noble
150	W. S. Williams, Kendallville	Noble
151	H. J. Heistand, Pennville	Jay
152	C. C. Mills, Red Key	Jay
153	H. Wiley, Portland	Jay
154	O. E. Spurgeon, Muncie	Delaware
155	W. A. Spurgeon, Muncie	Delaware
156	C. E. Miller, Muncie	Delaware
157	V. N. Fackler, Dublin	Wayne
158	U. B. G. Ewing, Richmond	Wayne
159	D. W. Stevenson, Richmond	Wayne
160	F. W. Krueger, Richmond	Wayne
161	E. S. Imel, Petersburg	Pike
162	S. R. Clark, Glezen	Pike
163	T. R. Rice, Petersburg	Pike
164	Clarence Abbott, Otwell	Pike
165	J. T. Kime, Petersburg	Pike
166	W. T. Blythe, Glezen	Pike
167	J. S. Baker, Spurgeon	Pike
168	T. W. Basinger, Petersburg	Pike
169	G. B. Grim, Petersburg	Pike
170	George L. Ireland, Winslow	Pike
171	W. M. Hunter, Petersburg	Pike
172	W. J. Bethel, Winslow	Pike
173	T. D. McGlasson, Winslow	Pike
174	A. R. Logan, Algiers	Pike
175	J. W. Coleman, Petersburg	Pike
176	H. M. Winans, Muncie	Delaware
177	E. G. Bonell, Hillsboro	Fountain-Warren
178	S. S. DeLancey, Williamsport	Fountain-Warren
179	T. P. Caplinger, Wallace	Fountain-Warren
180	C. J. Finney, Attica	Fountain-Warren
181	M. T. Case, Attica	Fountain-Warren
182	A. C. Holly, Attica	Fountain-Warren
183	W. H. Ross, Veedersburg	Fountain-Warren
184	J. W. Smith, Vevay	Switzerland
185	J. H. Shadday, Vevay	Switzerland
186	G. W. Copeland, Moorefield	Switzerland
187	Scott Culbertson, Vevay	Switzerland
188	L. H. Bear, Vevay	Switzerland
189	J. P. Ward, Vevay	Switzerland
190	H. M. Thiebaud, Vevay	Switzerland
191	R. M. Copeland, Vevay	Switzerland
192	J. N. Bell, New Burlington	Delaware
193	D. A. Holliday, Fairmount	Grant
194	W. A. Faukboner, Marion	Grant
195	L. H. Eshelman, Marion	Grant
196	H. F. Jeffreys, Upland	Grant
197	G. G. Richardson, Van Buren	Grant
198	J. C. Knight, Jonesboro	Grant
199	J. W. Patterson, Fairmount	Grant
200	C. B. Vigus, Pt. Isabelle	Grant
201	J. C. Ross, Gas City	Grant
202	J. E. Johnson, Marion	Grant
203	Glen Henley, Fairmount	Grant
204	L. D. Holliday, Fairmount	Grant
205	O. W. McQuown, Marion	Grant
206	V. V. Cameron, Marion	Grant
207	R. E. Egbert, Marion	Grant
208	Nettie B. Powell, Marion	Grant
209	J. F. Loomis, Marion	Grant
210	C. J. Overman, Marion	Grant
211	Jos. Maurer, Marion	Grant
212	G. G. Eckhart, Marion	Grant
213	C. O. Bechtol, Marion	Grant
214	B. C. Dale, Marion	Grant
215	Harry Williamson, Marion	Grant
216	Albert Davis, Marion	Grant

No.	Name and Address	County Society
217	C. R. Brown, Marion	Grant
218	J. D. McKay, Marion	Grant
219	J. M. Toney, Van Buren	Grant
220	Harry Miller, Marion	Grant
221	G. R. Daniels, Marion	Grant
222	G. W. Daniels, Sweetser	Grant
223	E. M. Trook, Marion	Grant
224	A. W. Lloyd, Hammond	Grant
225	M. T. Shively, Marion	Grant
226	A. A. Hamilton, Marion	Grant
227	Glen D. Kimball, Marion	Grant
228	J. T. Burnett, Jonesboro	Grant
229	E. T. Stout, Upland	Grant
230	R. W. Bartley, Marion	Grant
231	L. M. Bridge, Marion	Grant
232	I. S. J. Crumrine, Wabash R. R. No. 8	Grant
233	E. H. C. Heusler, Howell Sta., Evansville	Posey
234	I. L. Turman, Cynthiana	Posey
235	A. J. Kimmel, Hudson	Steuben
236	T. J. Creel, Angola	Steuben
237	Theo. F. Wood, Angola	Steuben
238	H. D. Wood, Angola	Steuben
239	W. H. Lane, Angola	Steuben
240	G. N. Lake, Pleasant Lake	Steuben
241	Mary Ritter, Angola	Steuben
242	W. F. Waller, Angola	Steuben
243	W. H. Waller, Angola	Steuben
244	O. H. Swantusch, Metz	Steuben
245	J. F. Cameron, Hamilton	Steuben
246	H. A. Nichols, Flint	Steuben
247	R. L. Wade, Freemont	Steuben
248	P. C. Barnard, Hamilton	Steuben
249	P. N. Sutherland, Angola	Steuben
250	F. B. Humphreys, Angola	Steuben
251	F. A. Chenoweth, Winchester	Randolph
252	Chas. E. Milligan, Winchester	Randolph
253	Bader S. Hunt, Winchester	Randolph
254	M. L. Hunt, Winchester	Randolph
255	J. H. Moroney, Winchester	Randolph
256	L. G. Cromer, Union City	Randolph
257	Mary O. Cromer, Union City	Randolph
258	E. G. Reynard, Union City	Randolph
259	C. L. Botkin, Farmland	Randolph
260	J. S. Blair, Lynn	Randolph
261	F. McK. Ruby, Union City	Randolph
262	G. C. Markle, Winchester	Randolph
263	O. E. Current, Farmland	Randolph
264	David C. Roney, Ridgeville	Randolph
265	L. N. Davis, Farmland	Randolph
266	Chas. E. Spitler, Saratoga	Randolph
267	C. A. Spitler, Saratoga	Randolph
268	Howard Drumm, Parker City	Randolph
269	Aaron G. Rogers, Parker	Randolph
270	Thos. W. Morgan, Spartansburg	Randolph
271	E. W. Rine, Winchester	Randolph
272	C. R. Cox, Lynn	Randolph
273	E. O. Harrold, Marion	Grant
274	W. E. Amy, Corydon	Harrison
275	John C. Bottorf, Corydon	Harrison
276	F. E. Wolfe, Corydon	Harrison
277	Frank T. Tyler, Crandall	Harrison
278	P. H. Schoen, New Middletown	Harrison
279	Oscar R. Myer, Lanesville	Harrison
280	L. F. Glenn, Ramsey	Harrison
281	J. C. Carson, Valparaiso	Porter
282	D. J. Loring, Valparaiso	Porter
283	R. D. Blount, Valparaiso	Porter
284	A. P. Letherman, Valparaiso	Porter
285	G. R. Douglas, Valparaiso	Porter
286	O. B. Nesbit, Valparaiso	Porter
287	J. A. Ryan, Valparaiso	Porter
288	S. J. Young, Valparaiso	Porter
289	H. E. Gowland, Valparaiso	Porter
290	G. H. Stoner, Valparaiso	Porter
291	E. H. Powell, Valparaiso	Porter
292	A. O. Dobbins, Wheeler	Porter
293	P. D. Noland, Kouts	Porter
294	H. J. DeFrees, Nappanee	Elkhart
295	F. N. Dewey, Elkhart	Elkhart
296	M. A. Farver, Middlebury	Elkhart
297	B. F. Teters, Middlebury	Elkhart
298	E. E. Ash, Goshen	Elkhart
299	I. J. Becknell, Goshen	Elkhart
300	J. A. Cook, Goshen	Elkhart
301	C. L. Dreese, Goshen	Elkhart
302	H. W. Eby, Goshen	Elkhart
303	A. S. Hollingsworth, Goshen	Elkhart
304	M. K. Kreider, Goshen	Elkhart
305	W. B. Kreider, Goshen	Elkhart
306	H. K. Lemon, Goshen	Elkhart
307	D. L. Miller, Goshen	Elkhart
308	J. A. Snapp, Goshen	Elkhart
309	B. F. Whitmer, Goshen	Elkhart
310	A. C. Yoder, Goshen	Elkhart
311	G. W. Kirby, Goshen	Elkhart
312	W. B. Page, Goshen	Elkhart
313	G. A. Whippy, Goshen	Elkhart
314	H. O. Staufft, Elkhart	Elkhart
315	W. A. Price, Nappanee	Elkhart
316	M. D. Price, Nappanee	Elkhart
317	I. Wright Short, Elkhart	Elkhart
318	J. A. Work, Jr., Elkhart	Elkhart
319	G. W. Spohn, Elkhart	Elkhart
320	J. C. Fleming, Elkhart	Elkhart
321	C. F. Fleming, Elkhart	Elkhart
322	E. Holdeman, Elkhart	Elkhart
323	B. F. Kuhn, Elkhart	Elkhart
324	A. A. Norris, Elkhart	Elkhart
325	M. M. Eekelman, Elkhart	Elkhart
326	C. R. Bassler, Elkhart	Elkhart
327	C. W. Haywood, Elkhart	Elkhart
328	A. S. Sensenich, Wakarusa	Elkhart
329	S. C. Wagner, Wakarusa	Elkhart
330	G. B. Hoopingarner, Elkhart	Elkhart
331	E. D. Stuckman, New Paris	Elkhart
332	Jas. Mathews, New Paris	Elkhart
333	M. H. Hostetler, New Paris	Elkhart
334	E. M. Hoover, Elkhart	Elkhart
335	A. J. Irwin, Goshen	Elkhart
336	J. A. Work, Sr., Elkhart	Elkhart
337	W. A. Stauffer, Elkhart	Elkhart
338	A. T. Ingalls, Elkhart	Elkhart
339	C. D. Goodrich, Elkhart	Elkhart
340	F. A. Benham, Elkhart	Elkhart
341	R. M. Murphy, Elkhart	Elkhart
342	C. W. Frink, Elkhart	Elkhart
343	E. R. Zimmerman, Elkhart	Elkhart
344	H. A. Barbour, Bristol	Elkhart
345	J. S. Inks, Nappanee	Elkhart
346	Chas Inks, Nappanee	Elkhart
347	E. J. Hagenbaugh, Elkhart	Elkhart
348	R. H. Elliott, Connersville	Fayette
349	F. J. Spilman, Connersville	Fayette
350	J. H. Clark, Connersville	Fayette
351	H. M. Lamberson, Connersville	Fayette
352	O. E. Dale, Connersville	Fayette
353	Stanton E. Gordin, Connersville	Fayette
354	F. L. Mitchel, Everton	Fayette
355	R. W. Sipe, Glenwood R. R. 29	Fayette
356	S. N. Hamilton, Connersville	Fayette
357	J. R. Mountain, Connersville	Fayette
358	O. P. M. Ford, Connersville	Fayette
359	Eugene E. Hamilton, Bentley, N. Dakota	Fayette
360	E. Derbyshire, Kissimme, Fla	Fayette
361	H. S. Hatch, Madison	Jefferson
362	R. W. Coehran, Madison	Jefferson
363	J. K. Pollock, Madison, Cragmont	Jefferson
364	A. P. Harrison, Madison, Cragmont	Jefferson
365	G. E. Denny, Madison	Jefferson
366	Chas. W. Denny, Madison	Jefferson
367	F. C. Denny, Madison	Jefferson
368	J. H. Christie, No. Madison	Jefferson
369	Vincent Shepherd, Dupont	Jefferson
370	S. A. Whitsitt, Kent	Jefferson

No.	Name and Address	County Society
371	E. C. Cook, Madison	Jefferson
372	F. H. Austin, Madison	Jefferson
373	C. C. Copeland, No. Madison	Jefferson
374	J. H. Calvert, Madison	Jefferson
375	E. C. Totten, Madison	Jefferson
376	Carl Henning, Hanover	Jefferson
377	E. E. Mitchell, Bedford	Lawrence
378	S. W. Smith, Bedford	Lawrence
379	M. Simpson, Bedford	Lawrence
380	J. T. McFarlin, Williams	Lawrence
381	J. A. Gibbons, Mitchell	Lawrence
382	J. B. Duncan, Bedford	Lawrence
383	Jos. Heitger, Bedford	Lawrence
384	E. L. Perkins, Bedford	Lawrence
385	Jasper Cain, Heltonville	Lawrence
386	J. D. Bryns, Mitchell	Lawrence
387	W. C. Sherwood, Mitchell	Lawrence
388	G. L. Gibbons, Mitchell	Lawrence
389	Perry Woolery, Heltonville	Lawrence
390	T. W. Bullitt, Rivervale	Lawrence
391	Claud Dollens, Avoca	Lawrence
392	O. B. Norman, Bedford	Lawrence
393	Chas. E. Rairden, Bedford	Lawrence
394	L. G. Boyd, Bedford	Lawrence
395	H. Voyles, Bedford	Lawrence
396	A. J. McDonald, Bedford	Lawrence
397	F. S. Hunter, Bedford	Lawrence
398	R. B. Short, Bedford	Lawrence
399	C. H. Emery, Bedford	Lawrence
400	J. C. Kelly, Bedford	Lawrence
401	A. W. Dierking, Oolitic	Lawrence
402	J. R. Andrews, Rivervale	Lawrence
403	J. N. Rannells, Rochester	Fulton
404	W. S. Shaffer, Rochester	Fulton
405	I. L. Babcock, Rochester	Fulton
406	L. C. Meek, Liosa	Fulton
407	C. J. Loring, Rochester	Fulton
408	C. L. Slonaker, Leiter's Ford	Fulton
409	A. Brown, Rochester	Fulton
410	H. W. Taylor, Rochester	Fulton
411	A. L. Bowman, Rochester, R. F. D.	Fulton
412	C. E. Gould, Rochester	Fulton
413	A. E. Stinson, Athens	Fulton
414	M. T. Brumbaugh, Foraker	Elkhart
412	C. E. Gould, Rochester	Fulton
416	W. T. Lawson, Danville	Hendricks
417	T. J. Beasley, Danville	Hendricks
418	Wm. M. O'Brien, Danville	Hendricks
419	John S. Ragan, Plainfield	Hendricks
420	Thos. R. Barker, Danville	Hendricks
421	Joel T. Barker, Danville	Hendricks
422	Wm. H. Terrell, Pittsboro	Hendricks
423	Stephen Hunt, Coatesville	Hendricks
424	O. T. Seamahorn, Pittsboro	Hendricks
425	F. L. Hicks, Stilesville	Hendricks
426	Thos. G. Smith, Brownsburg	Hendricks
427	C. A. White, Danville	Hendricks
428	W. J. Hoadley, Danville	Hendricks
429	R. E. Jones, Clayton	Hendricks
430	D. M. Reynolds, Clayton	Hendricks
431	E. Ray Royer, North Salem	Hendricks
432	G. G. Allred, Danville	Hendricks
433	A. W. Davidson, Brownsburg	Hendricks
434	Ernest Cooper, Plainfield	Hendricks
435	C. B. Thomas, Plainfield	Hendricks
436	C. S. Black, Warren	Huntington
437	W. D. Bonifield, Warren	Huntington
438	G. H. Brodbeck, Huntington	Huntington
439	Wm. C. Chafee, Huntington	Huntington
440	M. C. Clokey, Huntington	Huntington
441	E. T. Dippell, Huntington	Huntington
442	M. F. Fisher, Markle	Huntington
443	R. F. Frost, Huntington	Huntington
444	C. W. Fry, Huntington	Huntington
445	R. S. Galbreath, Huntington	Huntington
446	C. H. Good, Huntington	Huntington
447	B. H. B. Grayston, Huntington	Huntington
448	C. E. Grayston, Huntington	Huntington
449	F. W. Grayston, Huntington	Huntington
450	W. S. Grayston, Huntington	Huntington
451	J. M. Hicks, Huntington	Huntington
452	J. W. Kemp, Roanoke	Huntington
453	M. H. Krebs, Huntington	Huntington
454	S. Koontz, Roanoke	Huntington
455	H. E. Laymon, Warren	Huntington
456	H. K. McIlvaine, Huntington	Huntington
457	F. B. Morgan, Huntington	Huntington
458	O. O. Nelson, Huntington	Huntington
459	A. H. Northrup, Markle	Huntington
460	G. M. O'Leary, Huntington	Huntington
461	Ira E. Perry, Bippus	Huntington
462	E. W. Poinier, Andrews	Huntington
463	N. W. Scott, Huntington	Huntington
464	A. H. Shaffer, Huntington	Huntington
465	J. S. Sprowl, Warren	Huntington
466	R. Q. Taviner, Huntington	Huntington
467	A. H. Shock, Huntington	Huntington
468	S. V. Wilking, Roanoke	Huntington
469	O. B. Williams, Andrews	Huntington
470	G. G. Wimmer, Mt. Etna	Huntington
471	C. L. Wright, Huntington	Huntington
472	Ervin Wright, Huntington	Huntington
473	W. F. Smith, Huntington	Huntington
474	W. B. Siders, Millersburg	Elkhart
475	Homer R. McKinstray, Willoughby Bldg, Indianapolis	Marion
476	E. L. Swadener, Keshena, Wis.	Marion
477	Chas. L. Cabalzer, Willoughby Bldg., Indianapolis	Marion
478	Ada E. Schweitzer, care of State Board of Health Indianapolis	Marion
479	H. A. Jacobs, 403 N. Liberty St., Indianapolis	Marion
480	Geo. M. Wells, 2126 College Ave., Indianapolis	Marion
481	S. H. Caraway, 1810 Montcalm St., Indianapolis	Marion
482	Chas. C. Haskell, 2418 N. Alabama St., Indianapolis	Marion
483	J. O. Stillson, 445 N. Pennsylvania St., Indianapolis	Marion
484	John Spaulding, Tyro, Kansas	Marion
485	I. C. Barnes, 160 E. Market St., Indianapolis	Marion
486	H. G. Gaylord, Fountain Blk., Indianapolis	Marion
487	H. F. Beckman, 601½ E. McCarthy St., Indianapolis	Marion
488	J. J. Kyle, Newton Claypool Bldg., Indianapolis	Marion
489	E. E. Dougherty, 1957 W. Washington St., Indianapolis	Marion
490	L. M. Dunning, 1520 Roosevelt St., Indianapolis	Marion
491	Joseph J. Gramling, 3224 Northwestern Ave., Indianapolis	Marion
492	Wm. S. Tomlin, Newton Claypool Bldg., Indianapolis	Marion
493	Geo. W. Lee, West Newton	Marion
494	Jane Ketcham, 319 N. Penn, Indianapolis	Marion
495	W. D. Hoskins, Newton Claypool Bldg., Indianapolis	Marion
496	Geo. A. Coble, New Augusta	Marion
497	Geo. H. F. House, 3015 N. Illinois St., Indianapolis	Marion
498	N. E. Harold, 1220 Prospect St., Indianapolis	Marion
499	W. I. Hoag, 2625 W. Washington St., Indianapolis	Marion
500	A. R. Harold, 2159 N. Illinois St., Indianapolis	Marion
501	Geo. W. Boner, Loogootee	Martin

No.	Name and Address	County Society
502	J. C. Trueblood, Loogootee	Martin
503	G. M. Robinson, Loogootee	Martin
504	J. W. Strange, Loogootee	Martin
505	E. E. Long, Shoals	Martin
506	Chas. E. Stone, Shoals	Martin
507	H. W. Shirley, Shoals	Martin
508	T. A. Hays, Burns City	Martin
509	J. N. Sims, Dover Hill	Martin
510	J. S. Gilkison, Indian Springs	Martin
511	W. L. Gilkison, Loogootee	Martin
512	T. C. Dollens, Trinity Springs	Martin
513	C. R. Vickery, South Bend	St. Joseph
514	J. W. Hill, South Bend	St. Joseph
515	Chas. Stoltz, South Bend	St. Joseph
516	R. C. Shanklin, South Bend	St. Joseph
517	H. F. Mitchell, South Bend	St. Joseph
518	R. B. Dugdale, South Bend	St. Joseph
519	W. A. Hager, South Bend	St. Joseph
520	Chas. Bosenbury, South Bend	St. Joseph
521	C. E. Hansel, South Bend	St. Joseph
522	E. J. Lent, South Bend	St. Joseph
523	W. A. Wickham, South Bend	St. Joseph
524	S. A. Clark, South Bend	St. Joseph
525	Thomas Olney, South Bend	St. Joseph
526	A. C. Bartholomew, South Bend	St. Joseph
527	W. G. Wegner, South Bend	St. Joseph
528	R. L. Sensenich, South Bend	St. Joseph
529	C. C. Terry, South Bend	St. Joseph
530	C. A. Rennoe, South Bend	St. Joseph
531	H. T. Montgomery, South Bend	St. Joseph
532	W. F. Miranda, Walkerton	St. Joseph
533	Walter H. Baker, South Bend	St. Joseph
534	C. E. Varier, South Bend	St. Joseph
535	U. G. Galloway, South Bend	St. Joseph
536	J. B. Brown, Crumstow	St. Joseph
537	E. P. Moore, South Bend	St. Joseph
538	W. L. Owen, South Bend	St. Joseph
539	C. M. Butterworth, South Bend	St. Joseph
540	S. W. Baer, South Bend	St. Joseph
541	S. L. Kilner, South Bend	St. Joseph
542	J. A. Varier, South Bend	St. Joseph
543	L. V. Stranz, South Bend	St. Joseph
544	J. M. Gordon, South Bend	St. Joseph
545	F. P. Eastman, South Bend	St. Joseph
546	H. M. Miller, South Bend	St. Joseph
547	C. A. Daugherty, South Bend	St. Joseph
548	C. A. Warwick, South Bend	St. Joseph
549	C. A. Dresch, Mishawaka	St. Joseph
550	Edgar H. Myers, South Bend	St. Joseph
551	J. B. Berteling, South Bend	St. Joseph
552	T. J. Swantz, South Bend	St. Joseph
553	O. Von Barandy, South Bend	St. Joseph
554	M. S. Denaut, Walkerton	St. Joseph
555	W. H. Hillman, South Bend	St. Joseph
556	C. E. Nusbaum, Bremen	Marshall
557	L. D. Eley, Plymouth	Marshall
558	L. A. Jeffery, Bourbon	Marshall
559	H. H. Talman, Culver	Marshall
560	H. P. Preston, Plymouth	Marshall
561	Luther Johnson, Bourbon	Marshall
562	J. W. Eidson, Plymouth	Marshall
563	J. B. Shipley, Burr Oak	Marshall
564	B. W. S. Wiseman, Culver	Marshall
565	C. F. Holtzendorff, Plymouth	Marshall
566	A. C. Holtzendorff, Plymouth	Marshall
567	P. W. Conway, Delphi	Carroll
568	H. M. Hall, Shelby, Mich	Carroll
569	C. E. Angell, Delphi	Carroll
570	W. H. Galbreth, Rockfield	Carroll
571	C. C. Hickman, Yeoman	Carroll
572	J. J. Shultz, Delphi	Carroll
573	O. G. Brubaker, Burlington	Carroll
574	W. A. Trobaugh, Cutler	Carroll
575	John Carney, Pyrmont	Carroll
576	B. W. Egan, Flora, R. F. D. No. 1	Carroll
577	M. D. Callane, Flora	Carroll
578	Eva N. Kennedy, Camden	Carroll
579	C. M. Kennedy, Camden	Carroll
580	J. E. Kitchell, Deer Creek	Carroll
581	F. P. Lyons, Flora	Carroll
582	E. D. Wagoner, Burrows	Carroll
583	H. Y. Mullin, Rockfield	Carroll
584	B. F. Snyder, Camden	Carroll
585	A. J. Chittick, Burrington	Carroll
586	W. O. Gossett, Radnor	Carroll
587	W. F. Sharrer, Delphi	Carroll
588	A. C. Clauser, Delphi	Carroll
589	F. H. Robinson, Delphi	Carroll
590	W. R. Quick, Delphi	Carroll
591	T. A. Kearns, Flora	Carroll
592	G. M. Buck, Burrows	Carroll
593	C. C. Crampton, Delphi	Carroll
594	C. E. Carney, Delphi	Carroll
595	I. N. Cochran, Delphi	Carroll
596	E. L. Peter, Flora	Carroll
597	T. D. Peter, Flora	Carroll
598	J. Richards, Fulton	Fulton
599	J. E. Rarick, Wolcottville	LaGrange
600	J. P. Salb, Jasper	Dubois
601	E. A. Sturm, Jasper	Dubois
602	Lee Salb, Jasper	Dubois
603	E. F. Steinkamp, Haysville	Dubois
604	H. C. Knapp, Huntingburg	Dubois
605	Fred Rust, Holland	Dubois
606	U. G. Kelso, Dubois	Dubois
607	C. W. Schwartz, Huntingburg	Dubois
608	E. G. Lukemeyer, Huntingburg	Dubois
609	L. C. Lukemeyer, Huntingburg	Dubois
610	C. R. Ramsbrok, Huntingburg	Dubois
611	O. A. Bigham, St. Anthony	Dubois
612	E. E. Schriefer, Ferdinand	Dubois
613	Victor Knapp, Ferdinand	Dubois
614	A. G. Wollemann, Ferdinand	Dubois
615	A. F. Gugsell, Jasper	Dubois
616	Wm. Rust, Holland	Dubois
617	F. M. Dickason, Bluffton	Wells
618	D. C. Wybourn, Ossian	Wells
619	E. P. Davenport, Craigville	Wells
620	S. A. Shoemaker, Bluffton	Wells
621	J. L. Redding, Bluffton, R. F. D. No. 3	Wells
622	J. C. Fulton, Bluffton	Wells
623	G. E. Fulton, Bluffton	Wells
624	I. N. Hatfield, Bluffton	Wells
625	C. L. Blue, Tocsin	Wells
626	R. E. Dewees, Keystone	Wells
627	A. W. Brown, Bluffton	Wells
628	E. W. Dyar, Ossian	Wells
629	L. Mason, Bluffton	Wells
630	Louis Severin, Bluffton	Wells
631	F. A. Metts, Bluffton	Wells
632	Thomas Morris, Mt. Zion	Wells
633	S. A. Goodin, Bluffton	Wells
634	M. W. McLain, Vera Cruz	Wells
635	L. A. Spaulding, Bluffton	Wells
636	C. H. Mead, Bluffton	Wells
637	L. H. Cook, Bluffton	Wells
638	J. W. McKinney, Bluffton	Wells
639	T. J. McKean, Linn Grove	Wells
640	L. C. Lukenbill, Marco	Greene
641	H. V. Norvell, Bloomfield	Greene
642	A. T. Custer, Linton	Greene
643	L. A. Hyde, Linton	Greene
644	A. A. Thomas, Linton	Greene
645	E. R. Mason, Bloomfield	Greene
646	J. E. Talbott, Sr., Linton	Greene
647	E. T. Sherwood, Linton	Greene
648	J. M. Harrah, Switz City	Greene
649	C. D. Mallett, Switz City	Greene
650	B. A. Rose, Linton	Greene
651	F. A. Van Sandt, Linton	Greene
652	P. C. Berns, Linton	Greene
653	B. F. Chambers, Lyons	Greene
654	Roy T. Cook, Bloomfield	Greene
655	John E. Talbott, Linton	Greene

No.	Name and Address	County Society
656	H. R. Lowder, Bloomfield	Greene
657	W. H. Beaty, Worthington	Greene
658	A. F. Knoefel, Linton	Greene
659	Bruce Fleetwood, Linton	Greene
660	T. A. Burkhardt, Jasonville	Greene
661	H. B. Leavitt, Rockville	Greene
662	J. W. Gray, Bloomfield	Greene
663	M. N. Thayer, Linton	Greene
664	J. T. Oliphant, Farmersburg	Sullivan
665	R. H. Vancleave, Farmersburg	Sullivan
666	G. D. Scott, Sullivan	Sullivan
667	J. R. Crowner, Sullivan	Sullivan
668	Paul Higbee, Sullivan	Sullivan
669	W. N. Thompson, Sullivan	Sullivan
670	Carl Briggs, Sullivan	Sullivan
671	E. M. Corbin, Sullivan	Sullivan
672	H. E. Bland, Fairbanks	Sullivan
673	Aurel Goodwin, Fairbanks	Sullivan
674	E. E. Robards, Shelburn	Sullivan
675	J. H. Wrork, Shelburn	Sullivan
676	R. B. Douglass, Shelburn	Sullivan
677	J. H. Neff, Sullivan	Sullivan
678	J. L. Durham, Sullivan, R. F. D.	Sullivan
679	T. S. Bedwell, Dugger	Sullivan
680	E. D. Thixtun, Terre Haute	Sullivan
681	Samuel A. Smoots, New Middletown	Harrison
682	L. N. Wells, De Motte	Jasper
683	M. B. Fyfe, Wheatfield	Jasper
684	M. D. Gwin, Renssellaer	Jasper
685	E. C. English, Rensselaer	Jasper
686	A. R. Kresler, Rensselaer	Jasper
687	I. M. Washburn, Rensselaer	Jasper
688	F. H. Hemphill, Rensselaer	Jasper
689	E. N. Loy, Rensselaer	Jasper
690	Alfred Rainier, Remington	Jasper
691	C. E. Scholl, Camden	Carroll
692	W. A. Mowry, French Lick	Orange
693	Laban Lindley, Paoli	Orange
694	Mart Hassenmiller, West Baden	Orange
695	G. G. Colglazier, Leipsic	Orange
696	O. H. Stewart, Orleans	Orange
697	R. E. Baker, Orleans	Orange
698	F. E. Hammond, French Lick	Orange
699	G. D. Kahlo, French Lick	Orange
700	S. L. Lingle, Paoli	Orange
701	C. L. Boyd, Paoli	Orange
702	S. F. Teaford, Paoli	Orange
703	N. A. Kremer, Madison	Jefferson
704	W. H. Coleman, Evansville	Vanderburgh
705	Henry Nenneker, Evansville, R. F. D.	Vanderburgh
706	W. F. Clippinger, Evansville	Vanderburgh
707	E. P. Busse, Evansville	Vanderburgh
708	A. J. Knapp, Evansville	Vanderburgh
709	B. J. Knapp, Evansville	Vanderburgh
710	J. W. Phares, Evansville	Vanderburgh
711	C. E. Laughlin, Evansville	Vanderburgh
712	M. J. Compton, Evansville	Vanderburgh
713	F. A. C. Hankins, Evansville	Vanderburgh
714	Chas. Knapp, Evansville	Vanderburgh
715	T. H. Taylor, Evansville	Vanderburgh
716	L. D. Brose, Evansville	Vanderburgh
717	A. M. Hayden, Evansville	Vanderburgh
718	B. L. Floyd, Evansville	Vanderburgh
719	W. S. Ehrich, Evansville	Vanderburgh
720	F. L. Davis, Evansville	Vanderburgh
721	L. E. Fritsch, Evansville	Vanderburgh
722	P. C. Rietz, Evansville	Vanderburgh
723	J. H. Willis, Evansville	Vanderburgh
724	W. R. Davidson, Evansville	Vanderburgh
725	J. Y. Welborn, Evansville	Vanderburgh
726	John W. Lorenz, Evansville	Vanderburgh
727	Chas. W. Hartloff, Evansville	Vanderburgh
728	Wm. Laval, Evansville	Vanderburgh
729	Carl G. Viehe, Evansville	Vanderburgh
730	D. A. Cox, Evansville	Vanderburgh
731	P. Y. McCoy, Evansville	Vanderburgh
732	G. C. Johnson, Evansville	Vanderburgh
733	Wm. H. Gield, Evansville	Vanderburgh
734	J. H. Kerth, Evansville	Vanderburgh
735	C. H. Viehe, Evansville	Vanderburgh
736	Geo. F. Greenleaf, Evansville	Vanderburgh
737	Edwin Linthicum, Evansville	Vanderburgh
738	J. W. Stork, Evansville	Vanderburgh
739	H. C. Knapp, Evansville	Vanderburgh
740	L. Worsham, Evansville	Vanderburgh
741	W. P. Woods, Evansville	Vanderburgh
742	G. W. Buckner, Evansville	Vanderburgh
743	E. C. Macer, Evansville	Vanderburgh
744	W. F. Cleveland, Evansville	Vanderburgh
745	W. R. Cleveland, Evansville	Vanderburgh
746	J. C. McClurkin, Evansville	Vanderburgh
747	C. P. Bacon, Evansville	Vanderburgh
748	M. Raydin, Evansville	Vanderburgh
749	W. J. Reavis, Evansville	Vanderburgh
750	Geo. E. Jones, Evansville	Vanderburgh
751	W. L. Royster, Evansville	Vanderburgh
752	P. H. Linthicum, Evansville	Vanderburgh
753	W. S. Pollard, Evansville	Vanderburgh
754	D. G. Tweedall, Evansville	Vanderburgh
755	J. B. Weever, Evansville	Vanderburgh
756	C. B. Harpole, Evansville	Vanderburgh
757	B. W. Begley, Evansville	Vanderburgh
758	W. S. Pritchett, Evansville	Vanderburgh
759	Phil Warter, Evansville	Vanderburgh
760	G. W. Varner, Evansville	Vanderburgh
761	D. B. Cain, Evansville	Vanderburgh
762	J. N. Baughman, Evansville	Vanderburgh
763	R. W. Viehe, Evansville	Vanderburgh
764	Edwin Walker, Evansville	Vanderburgh
765	C. A. Hartley, Evansville	Vanderburgh
766	B. S. Rose, Evansville	Vanderburgh
767	C. Kelsay, Evansville	Vanderburgh
768	W. E. McCool, Evansville	Vanderburgh
769	Leopold Heimann, Evansville	Vanderburgh
770	G. M. Young, Evansville	Vanderburgh
771	Thomas Macer, Evansville	Vanderburgh
772	T. L. Bryan, Evansville	Vanderburgh
773	Sidney J. Eichel, Evansville	Vanderburgh
774	Geo. W. Tepe, Evansville	Vanderburgh
775	Chas. Titus, Warrington	Hancock
776	Chas. A. Barnes, Greenfield	Hancock
777	J. L. Allen, Greenfield	Hancock
778	C. E. McCord, Fortville	Hancock
779	Stewart Slocum, Fortville	Hancock
780	W. R. Johnston, Charlottsville	Hancock
781	E. R. Gibbs, Greenfield	Hancock
782	O. S. Heller, Greenfield	Hancock
783	W. A. Justice, Greenfield	Hancock
784	Warren R. King, Greenfield	Hancock
785	E. R. Sisson, Greenfield	Hancock
786	Elmer E. Mace, New Palestine	Hancock
787	S. W. Hervey, Fortville	Hancock
788	E. A. Hawk, Carrollton	Hancock
789	Paul E. Trees, Maxwell	Hancock
790	C. K. Bruner, Greenfield	Hancock
791	Carl W. McGaughey, Greenfield	Hancock
792	W. F. Batman, Ladoga	Montgomery
793	J. C. Burkle, New Ross	Montgomery
794	P. J. Barcus, Crawfordsville	Montgomery
795	F. A. Dennis, Crawfordsville	Montgomery
796	H. E. Greene, Crawfordsville	Montgomery
797	J. L. Beatty, Crawfordsville	Montgomery
798	T. Z. Ball, Waveland	Montgomery
799	W. G. Swank, Crawfordsville	Montgomery
800	J. F. Davidson, Crawfordsville	Montgomery
801	G. T. Williams, Crawfordsville	Montgomery
802	O. H. Jones, Crawfordsville	Montgomery
803	F. O. Schenck, Crawfordsville	Montgomery
804	E. W. Keegan, Crawfordsville	Montgomery
805	H. W. Sigmond, Crawfordsville	Montgomery
806	A. A. Swope, Crawfordsville	Montgomery
807	B. F. Hutchings, Crawfordsville	Montgomery
808	M. V. B. Newcomer, Tipton	Tipton

No.	Name and Address	County Society
809	H. S. Gifford, Sharpsville	Tipton
810	E. W. McKee, Tipton, R. R. No. 6	Tipton
811	A. W. Gifford, Tipton	Tipton
812	A. S. Dickey, Tipton	Tipton
813	H. G. Read, Tipton	Tipton
814	H. E. Grishaw, Tipton	Tipton
815	W. C. Furney, Sharpsville	Tipton
816	S. M. Cotton, Goldsmith	Tipton
817	T. W. Longfellow, Windfall	Tipton
818	B. B. Thorpe, Curtisville	Tipton
819	W. F. Dunham, Kempton	Tipton
820	E. I. Hinkle, Goldsmith	Tipton
821	A. J. Banker, Columbus	Bartholomew
822	J. W. Benham, Columbus	Bartholomew
823	E. U. Wood, Columbus	Bartholomew
824	O. A. Delong, Azalia	Bartholomew
825	R. E. Holder, Columbus	Bartholomew
826	D. J. Marshall, Columbus	Bartholomew
827	A. M. Kirkpatrick, Columbus	Bartholomew
828	F. J. Beck, Hartsville	Bartholomew
829	F. D. Norton, Columbus	Bartholomew
830	W. H. Butler, Columbus	Bartholomew
831	A. P. Roope, Columbus	Bartholomew
832	G. O. Cosby, Elizabethtown, R. F. D. No. 18	Bartholomew
833	Geo. McCoy, Columbus	Bartholomew
834	Lotta Suverkrup, Columbus	Bartholomew
835	Eugene G. Regennas, Hope	Bartholomew
836	E. T. Francis, Louisville, Ky., 717 So. 12th St.	Bartholomew
837	B. T. Daggy, Columbus, R. F. D. No. 1	Bartholomew
838	J. I. Maris, Waymansville	Bartholomew
839	H. H. Kamman, Columbus	Bartholomew
840	P. A. Hobbs, Charlestown	Bartholomew
841	S. M. Voris, Columbus	Bartholomew
842	B. Fitzpatrick, Columbus	Bartholomew
843	Bertha Clouse, Columbus	Bartholomew
844	Paul C. Graham, Columbus	Bartholomew
845	G. E. Reynolds, Columbus	Bartholomew
846	F. V. Martin, Michigan City	LaPorte
847	W. B. Hollenbeck, Westville	LaPorte
848	Whitefield Bowers, Michigan City	LaPorte
849	F. R. Leeds, Michigan City	LaPorte
850	J. B. Rogers, Michigan City	LaPorte
851	J. N. Kelly, Westville	LaPorte
852	E. C. Blinks, Michigan City	LaPorte
853	H. H. Martin, LaPorte	LaPorte
854	H. H. Long, LaPorte	LaPorte
855	F. T. Wilcox, LaPorte	LaPorte
856	Bo. C. Bowell, LaPorte	LaPorte
857	C. E. Burleson, LaPorte	LaPorte
858	A. G. Tillotson, Michigan City	LaPorte
859	Paul E. Bowers, Michigan City	LaPorte
860	Leroy A. Wilson, Michigan City	LaPorte
861	H. J. Thompson, LaPorte	LaPorte
862	D. A. Buck, LaPorte	LaPorte
863	J. V. Kerrigan, Michigan City	LaPorte
864	J. J. Kerrigan, Michigan City	LaPorte
865	R. B. Jones, LaPorte	LaPorte
866	E. L. Annis, LaPorte	LaPorte
867	J. H. Fargher, LaPorte	LaPorte
868	O. L. Sutherland, LaPorte	LaPorte
869	R. B. Short, Union Mills	LaPorte
870	A. R. Simon, LaPorte	LaPorte
871	James W. Milligan, Michigan City	LaPorte
872	E. F. W. Crawford, Hanna	LaPorte
873	J. W. Snyder, Michigan City	LaPorte
874	F. R. Warren, Michigan City	LaPorte
875	M. L. Dresher, Michigan City	LaPorte
876	J. N. Ledbetter, Michigan City	LaPorte
877	Amie Killough, Michigan City	LaPorte
878	Geo. L. Osburn, LaPorte	LaPorte
879	J. S. Martin, Rolling Prairie	LaPorte
880	Wm. Walkinshaw, Stillwell	LaPorte
881	C. Newforth, Sunman	Dearborn
882	John Elfers, Rising Sun	Dearborn
883	W. F. Duncan, Aurora, R. F. D.	Dearborn
884	C. W. Shaw, Rising Sun	Dearborn
885	Geo. F. Smith, Lawrenceburg	Dearborn
886	Marc L. Bond, Aurora	Dearborn
887	W. H. Haynes, Aurora	Dearborn
888	L. C. Cowen, Rising Sun	Dearborn
889	J. C. Elliott, Guilford	Dearborn
890	A. T. Fagaly, Lawrenceburg	Dearborn
891	Robt. T. Neffner, Weisburg	Dearborn
892	D. E. Johnston, Moores'Hill	Dearborn
893	E. J. Libbert, Aurora	Dearborn
894	F. M. Mueller, Lawrenceburg	Dearborn
895	Jas. F. Treon, Aurora	Dearborn
896	H. H. Sutton, Aurora	Dearborn
897	Geo. H. Stevenson, Rising Sun	Dearborn
898	Wilbur Robinson, Sunman	Dearborn
899	J. L. McElroy, Aurora	Dearborn
900	Edward Wallace, Aurora	Dearborn
901	Geo. Hansell, Aurora, R. F. D.	Dearborn
902	O. S. Jaquith, Lawrenceburg	Dearborn
903	W. C. Henry, Aurora	Dearborn
904	A. E. Bulson, Jr., Ft. Wayne	Allen
905	H. A. Duemling, Ft. Wayne	Allen
906	Wm. Enslen, Ft. Wayne	Allen
907	M. F. Porter, Sr., Ft. Wayne	Allen
908	L. T. Rawles, Ft. Wayne	Allen
909	M. F. Schick, Ft. Wayne	Allen
910	Phillip Titus, Ft. Wayne	Allen
911	B. VanSweringen, Ft. Wayne	Allen
912	B. P. Weaver, Ft. Wayne	Allen
913	S. H. Haviee, Ft. Wayne	Allen
914	Lynn Rodgers, Ft. Wayne	Allen
915	E. E. Morgan, Ft. Wayne	Allen
916	A. F. Phillips, Ft. Wayne	Allen
917	G. L. Greenawalt, Ft. Wayne	Allen
918	W. O. Gross, Ft. Wayne	Allen
919	A. L. Schneider, Ft. Wayne	Allen
920	A. P. Buchman, Ft. Wayne	Allen
921	L. L. Culp, Ft. Totten, N. D.	Allen
922	J. H. McHugh, Ft. Wayne	Allen
923	Edward F. Devaux, Ft. Wayne	Allen
924	E. J. McOscar, Ft. Wayne	Allen
925	Dean Metcalf, Ft. Wayne	Allen
926	Chas. F. Niesehang, Ft. Wayne	Allen
927	C. C. Grandy, Ft. Wayne	Allen
928	G. W. McCaskey, Ft. Wayne	Allen
929	G. G. Brudi, New Haven	Allen
930	B. W. Rhamy, Ft. Wayne	Allen
931	H. E. Glock, Ft. Wayne	Allen
932	Chas. Rothchild, Ft. Wayne	Allen
933	S. D. Sledd, Ft. Wayne	Allen
934	C. E. Barnett, Ft. Wayne	Allen
935	Mary Whery, Ft. Wayne	Allen
936	J. C. Wallace, Ft. Wayne	Allen
937	S. E. Mentzer, Ft. Wayne	Allen
938	G. VanSweringen, Ft. Wayne	Allen
939	G. L. Parr, Washington	Daviess
940	J. W. Clark, Washington	Daviess
941	S. L. McPherson, Washington	Daviess
942	G. W. Willeford, Washington	Daviess
943	O. K. McKittrick, Plainville	Daviess
944	E. D. Millis, Plainville	Daviess
945	W. O. McKittrick, Plainville	Daviess
946	E. Hollingsworth, Washington	Daviess
947	T. B. Rankin, Odon	Daviess
948	J. DeMotte, Odon	Daviess
949	Vance May, Washington	Daviess
950	J. W. Anderson, Odon	Daviess
951	C. H. Yenne, Washington	Daviess
952	Henry Herr, Washington	Daviess
943	O. E. Lett, Montgomery	Daviess
954	R. S. Mitchell, Washington	Daviess
955	C. P. Scudder, Washington	Daviess
956	A. I. Donaldson, Washington	Daviess
957	Henry Gers, Washington	Daviess
958	T. F. Spink, Washington	Daviess
959	C. N. Coombs, Terre Haute	Vigo

No.	Name and Address	County Society
960	J. H. Weinstein, Terre Haute	Vigo
961	C. C. Givens, Lewis	Vigo
962	R. L. Woodard, Terre Haute	Vigo
963	D. T. Miller, Terre Haute	Vigo
964	F. H. Jett, Terre Haute	Vigo
965	E. S. Niblack, Terre Haute	Vigo
966	Walker Schell, Terre Haute	Vigo
967	M. A. Boor, Terre Haute	Vigo
968	Rudolph Yung, Terre Haute	Vigo
969	M. R. Coombs, Terre Haute	Vigo
970	D. R. Ulmer, Terre Haute	Vigo
971	J. R. Gillum, Terre Haute	Vigo
972	R. J. Danner, West Terre Haute	Vigo
973	J. H. Cook, Terre Haute	Vigo
974	W. F. Payne, Prairie Creek	Vigo
975	J. A. Cooper, Terre Haute	Vigo
976	W. D. Asbury, Coalmont	Vigo
977	H. L. Bernheimer, Terre Haute	Vigo
978	H. H. Ward, Coalmont	Vigo
979	E. C. McBride, Terre Haute	Vigo
980	D. W. Bopp, Terre Haute	Vigo
981	O. E. Fink, Terre Haute	Vigo
982	J. S. Shaffer, Terre Haute	Vigo
983	F. E. Wiedemann, Terre Haute	Vigo
984	S. M. Rice, Terre Haute	Vigo
985	J. P. Worrell, Terre Haute	Vigo
986	O. R. Spigler, Terre Haute	Vigo
987	M. B. VanCleave, Terre Haute	Vigo
988	D. C. Ramsey, Mt. Vernon	Posey
989	S. B. Montgomery, Cynthiana	Posey
990	C. L. Rawlings, New Harmony	Posey
991	J. E. Gudgel, Cynthiana	Posey
992	John E. Doerr, Mt. Vernon	Posey
993	Carl Flucks, Armstrong	Posey
994	Nellie Cole, Michigan	LaPorte
995	B. Wallace, Franklin	Johnson
996	O. A. Province, Franklin	Johnson
997	R. D. Willan, Trafalgar	Johnson
998	C. E. Willan, Trafalgar	Johnson
999	J. A. Craig, Greenwood	Johnson
1000	D. W. Sheek, Greenwood	Johnson
1001	L.P.V. Williams, Whiteland	Johnson
1002	R. W. Terhune, Whiteland	Johnson
1003	F. G. Jackon, Muncie	Delaware
1004	W. W. Wadsworth, Muncie	Delaware
1005	T. J. Mansfield, Muncie	Delaware
1006	B. F. Hoy, Syracuse	Kosciusko
1007	F. J. Young, Milford	Kosciusko
1008	C. N. Howard, Warsaw	Kosciusko
1009	C. E. Thomas, Leesburg	Kosciusko
1010	J. E. Potter, Milford	Kosciusko
1011	J. W. Dunfee, Etna Green	Kosciusko
1012	J. W. Heffley, Mentone	Kosciusko
1013	G. W. Anglin, Warsaw	Kosciusko
1014	J. H. Bowser, Syracuse	Kosciusko
1015	C. W. Burket, Warsaw	Kosciusko
1016	T. J. Clutter, Atwood	Kosciusko
1017	C. C. DuBois, Warsaw	Kosciusko
1018	P. G. Fermier, Leesburg	Kosciusko
1019	L. W. Ford, Syracuse	Kosciusko
1020	W. L. Hines, Warsaw	Kosciusko
1021	W. C. Landis, Claypool	Kosciusko
1022	Ira Leckrone, Silver Lake	Kosciusko
1023	C. E. Leedy, Pierceton	Kosciusko
1024	C. R. Long, Pierceton	Kosciusko
1025	A. C. McDonald, Warsaw	Kosciusko
1026	T. J. Shackleford, Warsaw	Kosciusko
1027	E. Stockberger, Milford	Kosciusko
1028	J. L. Warvel, Sidney	Kosciusko
1029	M. G. Yocum, Mentone	Kosciusko
1030	S. C. Murphy, Claypool	Kosciusko
1031	J. H. Sowers, North Webster	Kosciusko
1032	Dalton Wilson, Yankeetown	Warrick
1033	Wesley Wilson, Newburg	Warrick
1034	D. A. DeForest, Boonville	Warrick
1035	W. P. Ford, Boonville	Warrick
1036	E. L. Youngblood, Boonville	Warrick
1037	W. P. Robinson, Boonville	Warrick
1038	E. M. Folsom, Boonville	Warrick
1039	W. A. Hewins, Boonville	Warrick
1040	Wm. H. Mills, Boonville	Warrick
1041	P. N. Hoover, Boonville	Warrick
1042	G. H. Kister, Elberfeld	Warrick
1043	J. G. Hoover, Boonville	Warrick
1044	C. C. Rayl, Monroe	Adams
1045	M. F. Parrish, Monroe	Adams
1046	J. S. Boyers, Decatur	Adams
1047	W. S. Smith, Decatur	Adams
1048	H. F. Costello, Decatur	Adams
1049	J. M. Miller, Decatur	Adams
1050	S. D. Beavers, Decatur	Adams
1051	P. B. Thomas, Decatur	Adams
1052	H. M. Aspy, Geneva	Adams
1053	C. R. Price, Geneva	Adams
1054	T. J. McKean, Linn Grove	Adams
1055	W. W. P. McMillan, Decatur	Adams
1056	D. D. Jones, Berne	Adams
1057	C. H. Schenk, Berne	Adams
1058	A. Reusser, Berne	Adams
1059	O. M. Graham, Geneva	Adams
1060	D. B. Smoot, Washington	Daviess
1061	Allen Pierson, Spencer	Owen
1062	Thomas Gantz, Spencer	Owen
1063	H. A. Fox, Gosport	Owen
1064	B. Yocum, Coal City	Owen
1065	G. E. Willoughby, Gosport	Owen
1066	W. R. Holtzman, Stinesville	Owen
1067	F. M. Wiles, Indianapolis	Owen
1068	O. F. Gray, Spencer	Owen
1069	N. D. Cox, Spencer	Owen
1070	R. R. Coble, Spencer	Owen
1071	Alfred Mathys, Mauckport	Harrison
1072	John L. Marsh, Brownsburg	Hendricks
1073	C. A. Underwood, Danville	Hendricks
1074	Amos Carter, Plainfield	Hendricks
1075	L. P. Collins, Otis	LaPorte
1076	C. B. McCord, Veedersburg	Fountain-Warren
1077	Francis M. Jeffries, Attica	Fountain-Warren
1078	Jas. L. McBride, Zanesville	Wells
1079	F. W. Garrett, Liberty Center	Wells
1080	W. W. Swarts, Auburn	DeKalb
1081	Wm. F. Shumaker, Butler	DeKalb
1082	J. E. Cooper, Auburn	DeKalb
1083	A. B. Darby, Waterloo	DeKalb
1084	L. N. Geisinger, Auburn	DeKalb
1085	J. D. Nusbaum, Auburn	DeKalb
1086	F. S. Brown, Corunna	DeKalb
1087	M. E. Klinger, Garrett	DeKalb
1088	F. A. King, Garrett	DeKalb
1089	Frank Bevier, Waterloo	DeKalb
1090	D. M. Hines, Auburn	DeKalb
1091	F. M. Hines, Auburn	DeKalb
1092	L. B. Johnson, Ireland	Dubois
1093	P. B. Carter, Macy	Miami
1094	M. H. Taylor, Macy	Miami
1095	E. F. Kratzer, Bennett's Switch	Miami
1096	A. H. Kalbfleish, Peru	Miami
1097	O. R. Lynch, Peru	Miami
1098	J. O. Ward, Peru	Miami
1099	M. A. McDowell, Peru	Miami
1100	J. C. Fretz, Deedsville	Miami
1101	J. E. Yarling, Peru	Miami
1102	E. H. Andrews, Peru	Miami
1103	J. P. Spooner, Peru	Miami
1104	B. S. McClintic, Peru	Miami
1105	John Freeze, Bunker Hill	Miami
1106	E. H. Griswold, Peru	Miami
1107	M. C. Kimball, Converse	Miami
1108	C. E. Harris, Bloomington	Monroe
1109	G. F. Genolin Bloomington	Monroe
1110	J. W. Wiltshire, Bloomington	Monroe
1111	J. E. P. Holland, Bloomington	Monroe
1112	C. C. Stroup, Bloomington	Monroe
1113	R. A. Akin, Bloomington	Monroe

No.	Name and Address	County Society
1114	J. W. Squires, Ft. Wayne	Allen
1115	A. J. Kessler, Ft. Wayne	Allen
1116	H. E. Steinman, Monroeville	Allen
1117	J. H. Hosford, Ft. Wayne	Allen
1118	E. D. Smith, Leo	Allen
1119	L. P. Drayer, Ft. Wayne	Allen
1120	E. A. Crull, Ft. Wayne	Allen
1121	Daniel Beninghoff, Ft. Wayne	Allen
1122	E. Hawkins, Greencastle	Putnam
1123	E. M. Hurst, Cloverdale	Putnam
1124	C. T. Zaring, Greencastle	Putnam
1125	J. V. Bastin, Fillmore	Putnam
1126	W. W. Tucker, Greencastle	Putnam
1127	W. M. McGaughey, Greencastle	Putnam
1128	W. R. Hutcheson, Greencastle	Putnam
1129	J. M. King, Greencastle	Putnam
1130	J. F. Gillespie, Greencastle	Putnam
1131	Chas. Sudranski, Greencastle	Putnam
1132	Chas. F. Hope, Coatsville	Putnam
1133	C. L. Ansick, Fillmore	Putnam
1134	Y. N. New, Barnard	Putnam
1135	U. A. Wright, Coatsville	Putnam
1136	C. C. Collins, Roachdale	Putnam
1137	A. H. Horn, Putnamville	Putnam
1138	Jos. L. Preston, Cloverdale	Putnam
1139	J. E. Cullipher, New Maysville	Putnam
1140	C. N. Stroube, Roachdale	Putnam
1141	P. Mullinix, Greencastle	Putnam
1142	J. F. Cully, Bainbridge	Putnam
1143	Geo. L. Shoemaker, No. Manchester	Wabash
1144	Henry Ader, Somerset	Wabash
1145	C. L. Dicken, Lafontaine	Wabash
1146	W. A. Domer, Wabash	Wabash
1147	Reuben T. Ginen, Lagro	Wabash
1148	Emma G. Holloway, No. Manchester	Wabash
1149	B. A. Houser, Wabash	Wabash
1150	L. E. Jewett, Wabash	Wabash
1151	F. S. Kitson, No. Manchester	Wabash
1152	G. M. Laselle, Wabash	Wabash
1153	M. E. Renner, Urbana	Wabash
1154	L. W. Smith, Wabash	Wabash
1155	Jas. Wilson, Wabash	Wabash
1156	Horace Adams, Harlan	Allen
1157	J. B. McEvoy, Ft. Wayne	Allen
1158	Maria Jessup, Friendswood	Hendricks
1159	J. G. Bostwick, Mishawaka	St. Joseph
1160	H. A. Fink, South Bend	St. Joseph
1161	J. H. Fears, South Bend	St. Joseph
1162	W. F. Fisher, Centerville	Wayne
1163	H. C. Burcham, Richmond	Wayne
1164	I. F. Sweney, Milton	Wayne
1165	W. M. Helms, Williamsburg	Wayne
1166	H. B. Boyd, Cambridge City	Wayne
1167	L. B. Carter, Easthaven (Richmond)	Wayne
1168	E. E. Holland, Richmond	Wayne
1169	L. F. Ross, Richmond	Wayne
1170	W. H. Harrison, Rosebud, So. Dak	Hendricks
1171	R. V. Hannell, Lafayette	Tippecanoe
1172	E. B. Ruschli, Lafayette	Tippecanoe
1173	A. W. Schreiber, Lafayette	Tippecanoe
1174	G. F. Beasley, Lafayette	Tippecanoe
1175	A. C. Arnett, Lafayette	Tippecanoe
1176	F. M. Biddle, Battle Ground	Tippecanoe
1177	Geo. Revis, Lafayette	Tippecanoe
1178	A. B. Westfall, Lafayette	Tippecanoe
1179	A. W. Bitting, West Lafayette	Tippecanoe
1180	W. F. Butler, Stockwell	Tippecanoe
1181	R. M. Campbell, Lafayette	Tippecanoe
1182	F. S. Crockett, Lafayette	Tippecanoe
1183	E. C. Davidson, Lafayette	Tippecanoe
1184	C. V. Davisson, West Lafayette	Tippecanoe
1185	C. C. Driscoll, Lafayette	Tippecanoe
1186	J. D. Hillis, Lafayette	Tippecanoe
1187	Chas. Hupe, Lafayette	Tippecanoe
1188	G. F. Keiper, Lafayette	Tippecanoe
1189	C. B. Kern, Lafayette	Tippecanoe
1190	M. M. Lairy, Lafayette	Tippecanoe
1191	A. J. Lane, Washington, Ind	Tippecanoe
1192	G. P. Levering, Lafayette	Tippecanoe
1193	F. A. Loop, Lafayette	Tippecanoe
1194	U. A. Lyle, Lafayette	Tippecanoe
1195	W. F. McBride, Dayton	Tippecanoe
1196	O. L. McCay, Romney	Tippecanoe
1197	Adah McMahan, Lafayette	Tippecanoe
1198	T. E. Mitchell, Romney	Tippecanoe
1199	W. R. Moffitt, West Lafayette	Tippecanoe
1200	W. H. H. Moore, Lafayette	Tippecanoe
1201	J. S. Morrison, Lafayette	Tippecanoe
1202	H. M. Mugg, Clark's Hill	Tippecanoe
1203	W. M. Reser, Lafayette	Tippecanoe
1204	C. L. Rowland, West Point	Tippecanoe
1205	Harry Swezey, Lafayette	Tippecanoe
1206	J. W. Shafer, Lafayette	Tippecanoe
1207	R. S. Tea, Lafayette	Tippecanoe
1208	O. P. Terry, Lafayette	Tippecanoe
1209	F. B. Thompson, Lafayette	Tippecanoe
1210	G. K. Throckmorton, Lafayette	Tippecanoe
1211	G. R. Tubbs, West Point	Tippecanoe
1212	Earl Van Reed, Lafayette	Tippecanoe
1213	W. S. Walker, Lafayette	Tippecanoe
1214	R. H. Wagoner, Colburn	Tippecanoe
1215	S. S. Washburn, Colburn	Tippecanoe
1216	J. C. Webster, Colburn	Tippecanoe
1217	R. B. Wetherill, Colburn	Tippecanoe
1218	M. C. Wilson, Colburn	Tippecanoe
1219	[illegible] Wray, New Richmond	Tippecanoe
1220	Emil [illegible]ble, Lafayette	Tippecanoe
1221	D. S. Linville, Columbia City	Whitley
1222	Alice B. Williams, Columbia City	Whitley
1223	N. [illegible] Kithcart, Columbia City	Whitley
1224	F. G. Grim[illegible], Columbia City	Whitley
1225	J. U. C. Scott, Etna	Whitley
1226	A. [illegible] Tennant, Larwill	Whitley
1227	J. M. Magers, Churubusco	Whitley
1228	B. F. Stickler, Laud	Whitley
1229	C. L. Sonders, Columbia City	Whitley
1230	O. V. Schuman, Columbia City	Whitley
1231	B. P. Linville, Columbia City	Whitley
1232	E. M. Eberhart, So. Whitley	Whitley
1233	E. V. Nolt, Columbia City	Whitley
1234	O. E. Metzger, So. Whitley	Whitley
1235	Jessie Briggs, Churubusco	Whitley
1236	M. W. Webster, So. Whitley	Whitley
1237	S. R. White, Laud	Whitley
1238	J. F. Criswell, Churubusco	Whitney

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DAVIESS-KNOX-MARTIN

A joint meeting of the Daviess, Knox and Martin county societies was held in Washington Thursday, December 7. The following papers were read and discussed: "The Treatment of Pneumonia," Drs. W. H. Davenport, Vincennes, and Theodore Potter, Indianapolis; "The Physician and Surgeon on the Borderland—Who's Who?", Dr. J. W. Smadel, Vincennes; "Observations Based upon Fifty Cases Requiring Abdominal Hysterectomy," Dr. Goethe Link, Indianapolis; "Otitis Media," Dr. B. B. Griffith, Vincennes; "A Report of a Series of Cases of Appendicitis," Dr. J. G. Jones, Vincennes; "Summer Diarrheas in Children," Dr. C. E. Stone, Shoals; "The Treatment of Typhoid Fever," Dr. G. W. Willeford, Washington. Supper was served at six, and the evening pleasantly spent in smoking and joking under the efficient leadership of Dr. August Knoefel, Linton, councilor of the district.

The Daviess County society elected the following officers at its annual meeting December 7: President, Dr. G. W. Willeford; vice-president, Dr. J. W. Clark; secretary-treasurer, Dr. T. F. Spink; censor, Dr. S. L. McPherson, all of Washington.

Resolutions were passed in support of the effort now being made by the women's clubs of Washington to raise funds for the building and maintenance of a public hospital.

Adjourned. T. F. Spink, Secretary.

DELAWARE COUNTY

The Delaware County Medical Society met in the auditorium of the public library at Muncie, January 5.

In addition to a good representative attendance, six registered nurses were present, affording a welcome supplement.

Minutes of previous meeting read and approved, and routine business disposed of.

Dr. Clay A. Ball read a paper on "Anesthesia." In part the author said that all things being equal ether is safer than chloroform, though chloroform in the hands of a skilled anesthetizer is safer than is ether in the hands of one unskilled. A preliminary hypodermic of morphin or a compound is often an advantage, but usually masks symptoms and reflexes to an undesirable extent. No anesthetizer should get into a rut. Study your patient and adopt the service to his needs. Statistics are not always reliable. Chloroform kills quickly, thereby getting credit for perhaps too large a proportion of fatalities. Artificial respiration is a matter of great importance and should be persisted in to any length necessary to obtain results or till all possibility of success is eliminated. The principal objections to nitrous-oxid and nitrous-oxid-oxygen anesthesia are high price of gas and cumbersome apparatus. Nitrous-oxid is contra-indicated in plethoric subjects and those having obstructions in nose or throat. General anesthesia is frequently given when local anesthesia should be the one of choice. Ether will continue to be the most popular of all anesthetic agents at the present time available.

Adjourned. H. D. Fair, Secretary.

FORT WAYNE MEDICAL SOCIETY

Meeting of October 10

Society met in regular session in Assembly room with 18 members present.

Clinical cases. Dr. McCaskey reported case of Bright's Disease in man which disappeared and reappeared. Had albumin and casts in urine. Made lumbar puncture; fluid turbid and thick. Diplococcus of meningitis found in fluid and blood. Diagnosis of spinal meningitis made: Flexner's serum given, but patient, being in extremis, died. Point of interest is the differential diagnosis; Dr. McCaskey thinks that the nephritis was secondary to diplococcus infection.

Dr. L. T. Rawles read a paper on The Abdominal Symptoms in Arteriosclerosis. Dr. Rawles said that sclerotic changes may take place in groups of the arterial system, yet not involve the whole system, and that in the incipient cases there has been a general cutaneous disturbance of head and upper part of chest. Most of the people suffering from sclerotic degeneration are heavy meat eaters and suffer from faulty metabolism. Any part of the arterial system that is constantly engorged either physiologically or by some pathological process is more likely to develop sclerotic degeneration. The cases reported all suffered from more or less constant symptoms, viz.:

1. All are heavy meat eaters.
2. Abdominal pain 2 to 3 hours after meals.
3. Constant heart findings.
4. Constant kidney findings (interstitial nephritis).
5. The arterial cacexia which differs from dusky anemia of cardiac disease.
6. Constant enlargement of liver.
7. Cutaneous symptoms described as burning, drawing, itching, prickling sensation, and a sense of warmth alternating with chilliness.

Dr. Kane read a paper on Cardio-Vascular Changes in Infectious Diseases.

In opening the discussion, Dr. McCaskey said that the first paper brings out the great influence of acute infections on the arterial system. Many cases of weak heart follow the acute infections and should be carefully watched. The same influence could be manifested on the arterial system as that of the heart. One paper brings out the point that infection is metabolic, or intestinal or localized. The radial artery is frequently a poor index of the sclerotic change. Best point of diagnosis is increased pressure.

Dr. Weaver said that in typhoid the heart should be watched as closely as the abdomen. The maximum diastolic pressure is as important as systolic pressure in making diagnosis of hypertension. The lesion in syphilis is periarteritis.

Adjourned. G. Van Swearingen, Secretary.

Meeting of October 17

Society met in regular session in Assembly room with 19 members present. Minutes of previous meeting read and approved.

Dr. Weaver read a paper on Cardio-Vascular Changes of Senility. Paper made up largely of a discussion of several cases showing various localizations of the arterio-sclerotic process, the commonest arterial change incident to senility The first case, of strangulated femoral hernia in an old lady of 77 years, going through her operation without incident and dying six hours after returning home illustrated the epicritic effect of coronary sclerosis (a section of the calcified coronary being shown). Another case illustrating this process of surgical epicrisis was that of a man past 60 with well-marked myocarditic changes going through operation and convalescence from an appendicular abscess, only to succumb to a recrudescence of his cardio-vascular debility a few months later. A third case reported showing one of the manifestations of arterio-sclerosis in the peripheral vessels was in the form of a skiagram of the popliteal, anterior and posterior tibial arteries of a man suffering from senile gangrene of the leg. The last case reported was one of cerebral angio-spasm about the speech center of the left side, resulting in an amnesic aphasia of several hours duration, and from which the patient had suffered from ten attacks within the past twenty months.

The main features of the process and its effects on both the heart and arteries were enumerated and a short epitome of treatment outlined.

Dr. Dancer presented a paper on Cardio-Renal Disease.

In opening the discussion, Dr. McOscar asked when treatment should begin in early life to prevent progress of this disease.

Dr. Porter said that his interest in the subject pertains only to surgical risks. The usual examination in these cases includes an examination of the arteries which are moderately superficial; blood-pressure had

not had much attention at his hands. The principal risk is in the condition of the heart itself. So far as his own experience is concerned, he cannot recall a single accident following surgical procedure (barring gangrene) that could be fairly attributed to arteries that had lost their elasticity. The more important element is something which we have not yet gotten at. Take a case of diabetes for instance; incision is followed by infection or delayed union, and this condition cannot be attributed to arterial disease or disturbed circulation. The *x*-ray picture (arteriosclerosis) exhibited had an amputation without difficulty. He has at present a case of peritoneal tuberculosis in which there has not been union of the abdominal incision or any attempt at repair. This is not due to arterial disturbance.

Dr. B. Van Sweringen: Dr. Dancer seems to take it for granted, and it may be true, that the arterial changes are due to the circulation of some toxin. Some years ago the theory was hypertension. Some believe the increased tension in the kidney is primary. In a class of cases such as diabetes, the toxic theory is more tenable, but in others the toxic element is not present.

Dr. McCaskey: In regard to the two elements, hypertension and toxic material in the production of arterial disease, he does not think there is much doubt that the toxic theory is active. The toxic condition which produces arterial spasm, overactivity of the heart, produces hypertension, and this hypertension produces changes in the vessels. Overstrain, both physical and mental, may produce hypertension, resulting in arterial disease.

Dr. Porter asked whether there had been any investigations bearing on vocation or avocation and hypertension.

Dr. McCaskey said he did not know of any work along this line. There are two classes of cases, in his own observation, those that are overworked and those of sedentary habits.

Dr. Morgan said that young men who do overwork, such as violent exercise, have cardiac hypertrophy, but no arterial disease.

Dr. B. Van Sweringen: One can draw some conclusions from those cases of aortic stenosis and aneurysm of the arch, barring syphilis, occurring in patients of laborious occupations. Has observed that active exercise, producing albumin in urine, cardiac hypertrophy, raising tension, continued, produces arterial disease.

Dr. McCaskey said that this condition is due largely to metabolic toxins; these may be gastro-intestinal, due to inactive liver, kidneys, etc., as a result of an inactive life by the patient. Diet has a good deal to do with production of arteriosclerosis, more by the kind than quantity. Majority of toxins are nitrogenous products, produced by excess of proteid. Proteids should be cut down in all cases.

Dr. Wilking said that the papers touched only inferentially on the mental cases. The senile dementia coming on as a result of cerebral arterial changes is not produced in all cases. Some cases have advanced disease of the cerebral arteries without mental change. Mental changes may be due to the toxic absorption.

Dr. Rhamy: Regarding the toxins in diabetes, the acid intoxication is accepted. Lowered alkalinity of the blood sets up an irritation in wall of artery so that it would appear to be a chemical action, such as alcohol might produce.

Dr. Weaver, in answer to Dr. Wilking's question, said that it becomes merely a question of where the arterial changes strike the arteries. The case recited due to an angiospasm which will later produce dementia. Influence of nitrogenous food most important; the toxin produced without doubt a depressor-toxin. Smith and Walker have been able to produce an interstitial nephritis by the intravenous injection of adrenalin and sparteine sulphate, and acute nephritis by introduction of uranium nitrate. Does not know of any statistics on overwork, but believes that the condition pertains. Question of exposure in alcoholics should not be lost sight of. Common accepted theory is that in the absence of exciting cause the purine depresso-toxic bases are the cause of the arterial disease.

Application of M. F. Porter, Jr., presented and referred to board of censors.

Adjourned. G. VAN SWERINGEN, Secretary.

Meeting of October 24

Society met at Hope Hospital with 21 members present. Meeting called to order by president. Minutes of preceding meeting read and approved. Meeting in charge of Drs. Porter, Weaver, Hamilton and McCaskey.

Dr. Porter: Case 1.—Patient middle aged farmer, weighing 250 pounds; perfect health until onset of present trouble. Seen by Dr. Porter about 9 p. m., who learned that patient had taken violently ill a short time before noon of same day with severe pain in abdomen attended by some shock and frequent vomiting. Previous personal and family history, entirely negative. Examination revealed a rather rapid compressible pulse, moist skin and clear intellect. Quite marked abdominal distention with general abdominal tenderness, most marked in epigastrium. Made provisional diagnosis of acute pancreatitis and had patient moved to hospital. Was able to help himself in and out of bed both in preparing for the journey of twelve miles and on his arrival at hospital. He stood journey well. Hoping to gain the advantage of daylight for the operation and for the further purpose of allowing patient a little rest, it was deemed wise to postpone operation until next morning. Early next morning Dr. Porter was telephoned that patient's pulse was getting worse; preparations therefore hurried and got patient into operating room a little before 8 o'clock. Was able to assist himself onto table; skin moist; pulse more rapid and compressible than the night before. Anesthesia commenced, but before surgical narcosis was reached, patient began vomiting, rather regurgitating, large quantities of dark brown fluid, and simultaneously pulse and respiration failed. Head of table lowered to keep larynx as free as possible. Artificial respiration commenced and finally an incision in abdomen for the purpose of cardiac massage was done. All efforts were useless. Death followed in a few moments. Patient had required quite large doses of morphin to make the pain bearable. Through the incision already in the abdomen could be seen a large quantity of bloody fluid free in the peritoneal cavity. Stomach, liver and gall passages healthy, and no gallstones. Under-surface of omentum, which was very heavy, showed marked fat necrosis. Pancreas very large through entire extent and extremely friable; was about the color of an old fashioned black cherry. Showed specimen pinched from middle of organ with his fingers; generally infiltrated with blood as though hemorrhage was result of general diapedesis rather than rupture of larger vessels. Microscopic slides made by

Dr. Rhamy were shown. The picture one of acute infection with extravasation of blood. Case regarded as one of acute intestinal obstruction, which is the diagnosis made in the majority of these cases. Acute pancreatitis occurs in three forms: suppurative, gangrenous and hemorrhagic. All of these forms probably phases of the same infection. Whether or not the hemorrhage precedes or follows the inflammation is still a matter of dispute. Personally, Dr. Porter believes, with Fitz, that the hemorrhage is the result of the inflammation, at any rate in these ultra-acute cases in which blood is found generally disseminated throughout the parenchyma of the organ. Patients suffering from this form of the disease die before either suppuration or gangrene can take place. In some acute cases there is no doubt in his mind that hemorrhages frequently occur from ruptured blood-vessels and in these cases in the pancreas will be found several blood-clots of different sizes.

Acute pancreatitis should be suspected in every case when a previously healthy person is suddenly attacked with violent epigastric pain; an exploratory laparotomy will settle the diagnosis through the swelling of the pancreas, fluid in peritoneal cavity and fat necrosis. The patient whose case is here reported gave no previous history of indigestion, though as a rule these patients do give such a history. The only treatment for acute pancreatitis is operation followed by drainage either indirectly through gall-bladder or directly, or both, dependent upon character of case in hand. Probably a mistake was made by delaying operation in this case, however, you will note that patient died within 20 hours from time of first symptom, and it is therefore questionable whether an immediate operation would have saved his life. In the future, however, Dr. Porter will operate as soon as preparations can be made.

Case 2.—Patient young woman aged 22, brought to hospital in wildly delirious condition; no pulse at wrist; respiration 28; temperature 103 3-5; color good. In previously good health, she had taken sick four days before arrival, with severe pain in epigastrium and vomiting. A few hours before being brought to hospital she had gone into condition of "collapse." Abdominal examination negative except for considerable tenderness; greatest over epigastrium. Bimanual vaginal examination revealed nothing except a bloody grumous discharge from uterus. According to mother patient had menstruated regularly ten days previously. Prior to arrival at hospital she had been without fever. Nothing in personal or family history to throw any light upon case. It was the opinion of the physician referring the case that patient was suffering from a peritonitis, possibly of appendiceal origin. No diagnosis arrived at. Patient regarded as dying by Dr. Porter, and elevation of temperature considered as premortuary in character. Death followed in couple of hours.

Post-mortem, confined to abdomen, revealed an unusual congestion of small intestine and mesentery. Liver seemed slightly diminished in size but was not weighed; yellowish-white in appearance; substance extremely friable. Kidneys showed nothing abnormal to naked eye. Specimens of liver and kidney submitted to Dr. Rhamy for examination, who reported that he found traces of phosphorus in liver substance, and that microscopic examination showed fatty degeneration of liver cells. Kidney section showed acute nephritis of moderate degree. Case is proven to be one of acute yellow atrophy of liver, or acute fatty degeneration due probably to phosphorus poisoning. To Dr. Porter's mind it is highly probable that liver changes occurring in phosphorus poisoning, acute yellow atrophy and icterus gravis are essentially the same, the difference being one of degree. It is easy to imagine, for instance, that if a patient with such a liver as that from which this specimen was taken were to live long enough to have the fat absorbed, the result would be marked atrophy of the organ. The fact that the liver in phosphorus poisoning is rather enlarged than diminished in size proves nothing other than that a sufficient time has not elapsed for absorption to take place. Those who believe yellow atrophy and phosphorus poisoning to be distinct conditions, point to the fact that in yellow atrophy liver cells contain but 5 per cent. of fat while in acute phosphorus poisoning it often reaches as high as 30 per cent. It is Dr. Porter's opinion that this difference in fat percentage can be accounted for on the ground that those who die of phosphorus poisoning do not live sufficiently long for the fat to be absorbed. Yellow atrophy of liver a very rare disease. When Osler wrote the third edition on his "Practice of Medicine" he had never seen a case. No cases occurred in the first 11 years of the Johns Hopkins Hospital, and Hilton Fagge reports that in 27 years there were but eleven cases brought to autopsy at Guy's.

That a large percentage of cases of acute yellow atrophy occur in young women who have suffered extreme mental shock or perturbation is rather extraordinary, and in this connection it is interesting to remark that after this patient's death Dr. Porter learned that she had been jilted by her lover, and that a few days before she took sick she fainted on suddenly meeting him and his new bride face to face. In many of the cases reported there seems to be no exciting cause other than mental shock.

Dr. McCaskey. Case 1.—Patient woman aged 30. About five years ago, and one year after her last confinement which was normal, she began to complain of slight weakness in limbs and back. This amounted in time to a slight aching more like that of excessive fatigue. These symptoms gradually increased until about two years ago loss of motor power became so great that she was compelled to use crutches, which she used until about two months ago, since when she has been unable to walk with crutches. The only other symptom worth noting was occasional painful cramps in feet and lower extremities. Digestive and circulatory organs normal. Pupils normal, as also vision. Reflexes greatly exaggerated with ankle-clonus and Babinski signs. Sensation not involved. Diagnosis: Chronic degenerative process principally involving crossed pyramidal tract producing what is known as spastic paraplegia. Prognosis unfavorable as treatment has but little effect.

Case 2.—Patient man aged 49; suffering from pernicious anemia; now in second relapse. Remained well the last time for about six months, when he suddenly began to run down in strength without much loss of weight; presented typical clinical picture when he came to hospital. Marked gastro-intestinal disturbance, with pallor and weakness without material loss of weight. During preceding attack the Hgb. only got down to 40 per cent. and he left hospital with about 85 per cent. During this relapse, while he apparently started down hill rather rapidly, it was only for a short time and the Hgb. had only dropped to 70 per cent. but red cell count was 2,056,000, showing a color index of 1.75.

Microscopically blood showed normoblasts, megaloblasts and marked poikilocytosis. White cells normal in number—about 5,000—but differential count showed 43 per cent. polynuclear cells and 46 per cent. of small lymphocytes, with 5 per cent. of eosinophils. Since entering hospital Hgb. has gone up to 80 per cent. while red blood-cells have increased to 3,056,000, showing a color index of 1.35. Patient improving rapidly on cacodylate of iron by intramuscular injection, and both gastric and colon lavage with 2 per cent. argyrol on the supposition that some gastro-intestinal toxin may have something to do with the production of hemolysis. Will probably make relative recovery, at least, from this attack in a few weeks.

Case 3.—Paroxysmal tachycardia. Patient woman 46 years of age. Nothing of especial interest in history excepting that patient had been subject to sick headaches until ten years ago when this was suddenly replaced by attacks of rapid heart action in which the rate would pass in an instant from normal to about 200, the attacks lasting from a few hours to several weeks. She has now been suffering from an attack for about four days during which time the pulse-rate has ranged from 200 to 240, the most common rate being 216. Pathology of these cases very obscure, although in many of them, and Dr. McCaskey believes in this one, degenerative changes in the neuromuscular mechanism are responsible. Back of it all is a toxemia combined with a neuropathic constitution which made possible the protracted migraine of earlier years, and is of course intimately connected with these attacks. Severe paroxysms of precordial pain occur at beginning and close of attacks and sometimes frequently during their existence, requiring opiates for relief. Aside from this, treatment is absolute rest with careful attention to main functions, and if her heart shows signs of great weakness, the judicious use of cardiac tonics. Real treatment of these cases lies in their proper management during the interval. Underlying pathology should receive careful attention and treatment.

The following skiagrams were shown by Drs. B. P. Weaver and Allen Hamilton: Plate I. Fracture dislocation of fifth cervical vertebra. Plates II, III and IV. Various degrees of severity of Colles' fracture. Plates V, VI, VII, VIII and IX. Different views of comminuted, double fracture of lower extremity at different periods of convalescence. Plate X. Compound, comminuted, Potts' fracture that had been sutured.

In discussion of Dr. Porter's second case, Dr. B. Van Sweringen said that this case corresponds with that of a patient at the Indiana School for Feeble Minded Youth a few years ago, who had eaten roach paste: liver six or seven days. Died with much the same liver condition as that described by Dr. Porter. Dr. Van Sweringen also reported a case of phosphorus poisoning due to match heads. No marked symptoms for five days. Dr. Rhamy made an effort to find out the amount of fat in the liver in this case and estimated that one-half the bulk of the liver was fat.

Dr. Porter said that one of the differences between phosphorus poisoning and other cases of atrophy of the liver is the high percentage of fat in phosphorus poisoning.

Dr. Weaver said that a very few years ago acute shock was thought to be present at the onset in cases of acute pancreatitis. This patient walked into the hospital and no evidence of shock was present.

Dr. B. Van Sweringen: The case of acute pancreatitis which he saw showed definite pathology. The extravasation of blood was great and dissected up the pancreatic tissue so that there were islands of pancreatic tissue to be seen. This case seemed to be more general in nature.

Motion carried to have meeting of November 7 at Commercial Club a smoker for Dr. Smith, of Toledo. Motion carried that all applicants coming into society since October 1 have their dues credited to 1912.

Dr. Porter read a letter which he had received from Dr. W. A. Evans, of Chicago, stating that the Chicago *Tribune* had created a department of health in which Dr. Evans was chief of department. Dr. Porter said that this was a splendid thing and that the Chicago *Tribune* deserves credit. This paper should be encouraged in its action. Motion carried that secretary be instructed to convey to Dr. W. A. Evans, editor of the Health Department of Chicago *Tribune* that we commend the efforts of the *Tribune* in establishing a health department and approve most heartily the stand which has been taken.

Adjourned. G. VAN SWERINGEN, Secretary.

Meeting of October 31

Society met in regular session in Assembly room with eighteen members present. Called to order by president. Minutes of previous meeting read and approved.

Clinical cases. Dr. Wheelock gave a preliminary report on echinacea. Tried it on a case of otitis media, using it for two weeks; ears still discharging. Reported case of meningitis and death from extension of abscess in middle ear. Reported a case of eye injury; protruding iris. Enucleated eye for panophthalmitis. Excision of iris earlier in case would have saved the eye.

In opening the discussion, Dr. Bulson said that Dr. Wheelock's first case only emphasizes the importance of ear drainage early in the case. Reported a case of patient with ear ache: was up and about, but became so uncomfortable that he found it necessary to stay at home. Diagnosis of la grippe made by family physician and a prescription was given. Following this the drum head was lanced and a few drops of blood presented; no mastoid signs. Case died from meningitis. If you could always tell the point of abscess you could open skull and make drainage. Referring to Dr. Wheelock's eye case, Dr. Bulson said that he had also seen the case. Doctor referring case wanted a rebate, so did not operate.

Dr. Porter said that it is a great pity that a post-mortem is not done on these cases of death following ear involvement. Cannot be sure of cause of death unless autopsy is done. The case histories recited by Dr. Wheelock are not those of meningitis but rather from the general absorption of infection and perhaps rupture of an abscess.

Dr. Bulson said he did not have a post-mortem in the case he reported. Operation was refused. Lesion perforated posterior wall of the antrum; localized abscess and meningitis. Thinks Dr. Porter is right in insisting on post-mortem examination in these cases. He discussed several cases in which he refused to sign death certificates unless a post-mortem was made.

Dr. Pulliam said that subnormal temperature is usually present in sub-dural abscess; in epidural abscess there is a rise of temperature.

In closing, Dr. Wheelock said that as to the question of general meningitis, in his opinion there could be no doubt of it in this case. The patient had generalized pain. Pus does not localize in the brain under

two weeks. This patient died within one week. He believes the patient had a leptomeningitis. No focal symptoms of any sort were present. Does not believe that there would have been any advantage in opening the cranial cavity in this case. Wondered if serum therapy would have been of any benefit. Did not have post-mortem.

Dr. McCaskey said he would like to make a plea to make surgical every case of this nature when in doubt. It is up to the surgeon to do his duty. Thinks it foolish to rush into a capital operation where death is imminent, but in these cases thinks the surgeon would be justified in exploratory operative procedure. Thinks these cases are localized at first. From this it becomes a leptomeningitis. In both types of brain abscess the temperature is not high. Mentioned Eberth bacillus infection and frontal sinus disease; temperature not high in either case. Does not think we ought to hesitate in brain lesions to give the case the benefit of surgery. Thinks that no good would come of serum therapy in these cases unless nature of infection was known. Blood serum of one of the family of patient would perhaps act better.

Dr. Rhamy: Dr. Webster, of Chicago, says that rabbit serum is as good as the human serum in these cases.

Dr. Bulson said that on two different occasions he had presented the case of a man who had a supposed malignant growth involving all the nasal and facial tissue. Dr. Rhamy never was able to tell the nature of the growth. Hemorrhage finally killed patient. No autopsy. Inclined to diagnosis of sarcoma, although it was never found ante mortem. Finally paralysis of the external rectus, myosis of right pupil, facial palsy; growth finally involved the antrum and hard palate. Could always feel a mass in the posterior wall of the antrum.

Dr. Wheelock, speaking of neoplasms of the nasopharynx, said that he is satisfied that operative interference does little good. He has used all methods of treatment and thinks he will use boiling water injections in the future. Has also used absolute alcohol with fair results. Spoke of patient who had epilepsy, and after injections of alcohol, epilepsy disappeared for two years.

Dr. Porter reported a case which Dr. Crile had operated upon and pronounced the growth inflammatory tissue. Dr. Porter made a section of this growth and Dr. Rhamy pronounced it sarcoma. Proceeded to removal of tumor and parotid gland. Submitted both to Dr. Rhamy, and his report proves that growth was both a sarcoma and carcinoma.

Dr. Rhamy presented a paper on Acetonuria and the Relation of Acetone to Acid Intoxication. This paper reviewed the theory of acid intoxication in diabetic coma and allied toxemias and concluded (with Ewing) that no adequate proof had been presented to substantiate this theory. Quotations were made from the literature showing that oxy-butyric acid and diacetic acid were harmless if taken internally and that acetone taken by mouth produced only slight intoxicating effect. The chemistry of acetone was given and a series of experiments on guinea-pigs testing the toxicity of acetone. It was found that in every case a subcutaneous injection of a dose of acetone sufficient to induce slight intoxication when given daily gradually accumulated a toxic effect until deep coma was obtained, sometimes convulsions, and in the majority of cases rapid respiration, and ending in death. Believing that the hydrochloric acid in the stomach decomposed acetone the experiment was made of using the same dose of acetone which produced death in the other experiment combined with .2 per cent. hydrochloric acid (which represents the free acid in the gastric juice) and injected subcutaneously daily without apparent effect. On the other hand an alkaline solution of acetone was found to be much more toxic than acetone in distilled water. The alkaline solution caused death after two doses, while the solution in distilled water took four to six doses. After these experiments, the writer believes that while acetone is comparatively inert by mouth, yet when injected subcutaneously or formed within the body it has a slow accumulative toxic power which may during periods of susceptibility effect serious or fatal injury. It was found by comparative test to be much more toxic than methyl alcohol. Its effect on the liver and kidneys and the nervous system is probably due to its irritating qualities, dehydrating and hardening power. In a series of eighty-six urinalyses in pregnancy it was found that acetone was only present in the urine in toxemia and that it was always present where was a toxemia in pregnancy. Diacetic acid was found only in 20 per cent. of the cases of toxemia in pregnancy. Dr. Rhamy believes that most of the acetone found in the system is formed in the intestines and that it plays an important rôle in the so-called acetone intoxication.

Dr. McCaskey said that this is such a valuable paper, and is so broad in its scope that he thought its discussion should be postponed for two weeks. Motion to that effect carried.

Motion to submit Dr. Rhamy's paper to the Committee on program of the State Association.

Dr. Weaver moved to amend the motion to have Dr. Rhamy's paper go before the Section on Pathology and Physiology of the A. M. A. Motion lost.

Dr. Weaver made motion to have Dr. Rhamy continue his work and finally submit his paper to the A. M. A. Carried.

Adjourned. G. Van Sweringen, Secretary.

FOUNTAIN-WARREN COUNTY

The regular meeting of the Fountain-Warren County Medical Society was held December 7 at Mudlavia, 33 members being present. The society was the guest of R. B. Kramer.

Dr. Haseltine, of Chicago, discussed the subject "Modern Conception of Tonsil Pathology and Its Treatment." Special stress was laid on the danger of tubercular infection through the avenue of diseased tonsils, to the high percentage of cervical adenitis associated with chronic tonsillitis, which is often a tubercular condition involving more extensive surgery. He also spoke of the well recognized relation between chronic tonsil infection and rheumatism. In view of these common distressing conditions and the unsatisfactory results following the methods of partial removal so long in vogue, the importance of clean and complete surgical removal of diseased tonsils was urged.

Dr. Coleman substituted for Dr. Bremmerman, of Chicago, in a paper "Indications and Contra-Indications to Salvarsan." Dr. Bremmerman in his paper detailed his experience with various methods of technic and his final preference for the intravenous method of administration. The essayist, while claiming unquestioned efficacy for this new agent in suitable cases, did not hesitate to advise conservatism in claims to

patients. He felt it incumbent upon physicians, until a fuller knowledge of its use was developed, to follow salvarsan with mercurial treatment in many cases. To this end, a point of special importance emphasized was the frequent and periodical checking of results by means of the Wassermann test. Under no circumstances should reliance be placed on one injection, but it should be followed in due time with a second and in many instances a third injection.

Dr. Hughes, in a paper covering the subject of "Obstruction of the Lachrymonasal Duct," presented the accepted management of this condition in a thoroughly practical manner, discouraging meddlesome probing and advising irrigation and simple management before resorting to surgical measures.

The following officers were elected: President, W. H. Dinsmore, Kramer; vice-president, Richard Stephenson, West Lebanon; secretary-treasurer, C. G. Beckett, Attica; state delegate, L. A. Bolling, Mudlavia; district delegate, C. J. Finney, Attica.

Adjourned. C. G. BECKETT, Secretary.

GRANT COUNTY

The 63rd annual meeting of the Grant County Medical Society was held in the society rooms, Marion, December 19.

Election of officers resulted as follows: President, O. W. McQuown, Marion; vice-president, J. M. Toney, Van Buren; treasurer, M. T. Shively, Marion; secretary, V. V. Cameron, Marion; board of censors, J. M. Toney, Van Buren, 3 years; G. G. Eckhart, Marion, 2 years; C. J. Overman, Marion, 1 year; state delegate for two years, G. R. Daniels, Marion; alternate, C. O. Bechtol; committee on public health and legislation, C. O. Bechtol, Marion, L. H. Eshelman, Marion, and H. S. Jeffrey, Upland.

Three applications for membership were voted on, two being elected and one rejected. Applications were received from Drs. Lloyd G. Campbell, Soldiers' Home, Marion; R. W. Brookie, Converse, and A. S. Newell, Converse. The three new applications were referred to board of censors. It was stated that Drs. Brookie and Newell wished to join this society for the purpose of convenience in attending. This fact was called to the attention of Miami County society and the Grant County society will have report from them at next meeting.

Dr. B. C. Dale was appointed to see Dr. Reasoner, administrator of the late Dr. Wm. Flinn, about presenting the society with a picture of Dr. Flinn. Dr. Flinn was at one time president of Grant County Medical Society, and it is the custom to hang the photographs of deceased presidents on the walls of the society room.

It was called to the attention of the society that former Mayor Chas. A. Bookwalter, of Indianapolis, had allowed the use of his name for the National League for Medical Freedom. By vote of the society the secretary was instructed to write Mr. Bookwalter with an explanation of the purposes of the League, which appears to be the defeat of the Owen Bill, and information as to who is back of, and composing the League. Dr. Cameron stated that he thought Mr. Bookwalter did not know the real purpose of the league, and paid a high tribute to Mr. Bookwalter in his stand against tuberculosis and patent medicines.

Attention was called to the fact that the next meeting of the Northern Tri-State Medical Association is to be held in Fort Wayne, and all were urged to attend.

Dr. G. G. Eckhart presented a letter concerning a patient with cancer who had been treated by Viavi until past surgical relief. It was shown in this case that the woman had visited and prescribed the treatment for several months before a physician diagnosed the case to be cancer. The agents of Viavi assured her that her trouble could be cured by their methods. Dr. Eckhart said that the husband of the woman expressed his willingness to aid the society in any prosecution that they would bring for practicing medicine without a license, and the matter was referred to the legislative committee with instructions to act according to their best judgment.

Dr. Fankboner suggested that the secretary report to THE JOURNAL after each meeting, as many important subjects come up for discussion that would be of general interest.

Secretary was instructed to enclose a self-addressed and stamped card with notices of January meeting to ascertain how many members would be present at a banquet to be held the evening of the next meeting night.

The essayists of the evening failing to appear, the secretary read a paper on Auscultation and Percussion of the Chest, written by the late Dr. Wm. Flinn, and found among the books of his library.

Before closing meeting, the president followed his usual custom of reading the program for the coming year.

Secretary reported that dues had been received from all members but five, four of these having moved out of the county.

Adjourned. V. V. CAMERON, Secretary.

HUNTINGTON COUNTY

The Huntington County Medical Society met in regular session December 6, with 23 members present.

Dr. J. M. Hicks, retiring president, gave an address in which he reviewed the year's work.

The committee on medical inspection of schools and school children reported that the inspection would also include the parochial schools.

Election of officers for 1912 resulted as follows: President, C. H. Good; vice-president, C. S. Black; secretary-treasurer, R. Q. Taviner; delegate, J. M. Hicks; alternate, Ervin Wright; censors, Drs. Hicks, Morgan and Fry.

Following the scientific session a banquet was served by the medical profession of Huntington.

Adjourned. R. Q. TAVINER, Secretary.

INDIANAPOLIS MEDICAL SOCIETY

Meeting of December 5

Meeting called to order by President Kimberlin. Minutes of previous meeting read and approved. Council reported, recommending election of Dr. S. L. Egart. Society voted favorably.

Dr. C. S. Woods submitted proposed ordinance prepared by Dr. H. E. Barnard for the prevention of smoke. Dr. Woods moved that a committee be appointed to be present at the council meeting when ordinance comes up for passage and urge its passage. Motion passed. President appointed following committee: Drs. F. B. Wynn, J. N. Cunningham and T. B. Eastman.

The program of the evening consisted of case reports. Dr. J. V. Reed presented a case of Hodgkin's Disease. Patient, male, aged 30. Trouble began eight years ago. Examination showed discrete, soft, movable glands in neck, axilla and groin with no peri-glandular inflammation. General health good. Wassermann's test negative. Leukemia eliminated by blood examination. A gland was removed, examination of which showed no tuberculosis. There were numerous endothelial cells with increased reticulum. Tonic treatment bettered general health and glands have not increased in size.

Dr. W. D. Hoskins presented case of "Cerebral Paralysis." Patient, child 2½ years old; weight 17 pounds; mental condition below par. Not able to sit alone and could not talk. Differential diagnosis discussed.

Dr. S. E. Earp reported case of poisoning with veronal, in which 100 grains were taken and patient recovered. A prescription was given of the preparation indicating it was a somnifacient and the dose 5 to 10 grains. Patient took 100 grains March 28 and became unconscious. On second day there were hypostatic congestions of left lung and stupor was profound; lower jaw rigid; skin hot and dry; reflexes normal; pupils reacted to light; temperature 104; pulse 144; respiration 56. March 30 respiration of Cheyne-Stokes character and there was evidence of collapse. Camphorated oil, sulphate of strychnia, digitalone and normal salt solution were given. There was retention of urine and an examination showed albumin. Blood-pressure 130; examination of blood showed reds, 3,260,000; whites, 15,200; differential polynuclears 97 per cent. Before and after collapse for period of five days temperature was 104. Rectal alimentation was adopted. After April 5 there was gradual improvement, and patient was dismissed April 9.

Dr. F. C. Warfel presented case of "Stricture of Esophagus." Patient, man 43 years of age; trouble existed for about a year. Diverticula eliminated by fact that a bougie could be passed without a guide. After dilatation there was some gain in weight, with a decline later. Diagnosis of carcinoma of cardia made. Process of dilatation demonstrated.

In the discussion, Dr. Brayton reviewed the cases of Hodgkins' Disease that had been presented to society. Discussed in detail first and second cases. A differentiation from tuberculosis was discussed in those cases.

Dr. F. B. Wynn reported some cases of Hodgkin's disease which had come to his notice. He suggested the use of *x*-ray both as a therapeutic and diagnostic agent.

Dr. A. C. Kimberlin reported two cases of stricture of esophagus due to malignant disease and gave clinical history. Suggested dilatation of stricture due to carcinoma would result in ulceration and abscess formation.

Dr. F. B. Wynn, referring to Dr. Warfel's case, reported a case of tuberculosis of mediastinal glands, causing stricture of esophagus; another cause due to aortic aneurysm.

Dr. A. B. Graham said that dilatation of esophageal stricture due to malignant disease should not be done.

Dr. Reed, referring to Dr. Warfel's case, said that it was his opinion that case presented was that of spasm of cardia with carcinoma in cardia.

Fifty-four members present.

Adjourned. Homer R. McKinstray, Secretary.

Meeting of December 12

Meeting called to order by President Kimberlin. Minutes of last meeting read and approved. Application of Dr. Lillian B. Mueller was read for first time, and applications of Drs. R. Russell Bush and Lillian C. Lowder were read for second time and referred to council.

President called attention of society to necessity of determining the relations of the State Association in the matter of entertainment at next meeting. After discussion society voted to take entire responsibility of entertainment and bear expense.

Dr. Neu reminded society that members should submit their papers to the council. It has been difficult to fill program. All members of society have equal privileges and there is no discrimination.

Dr. A. S. Jaeger read the paper of the evening on the subject, "Gonorrhea in Pregnancy," discussing treatment, possible complications of infection and methods of dealing with complications of labor in presence of infection.

Dr. J. A. Pfaff said that the gonococcus is a frequent cause of pelvic infection. Death from ruptured pus tube may occur during labor. Infection may be present and remain latent. During first three months infection is most liable to extend to uterus and adnexa. Diagnosis must be made from septicemia and saperacemia; clinical difference characteristic. Treatment should not be too vigorous. Rest and general attention necessary. Vaccine treatment not well established. Public should be educated concerning possibilities.

Dr. Pantzer said that gonorrheal infection at the puerperium is usually not fatal. Clinically different from other infections. Ichthyol in full strength applied locally is a favorite treatment. Perineum can safely be repaired.

Dr. Hadley: The greatest amount of trouble comes from infection in the tubes, which may be aggravated at confinement. Reported case which had acute attacks following two different labors.

Dr. Kimberlin reported a case of latent infection with rupture of tubes at labor, resulting in death. A second case was reported with infection carried to three members of the family with complications in each individual.

Dr. DeHaas reported a case of gonorrheal infection developing after labor, which responded to vaccine treatment.

Dr. Lee reported a case of gonorrheal abscess which was drained into vagina. Pregnancy followed and confinement without complications. A second case was reported in which the infection developed after confinement, resulting in death.

Dr. Brayton: There is a difference of opinion as to length of time gonorrheal infection may retain its virulency. The fact that a great many women have a chronic infection and develop complications cannot be denied. Statistics from large hospitals show a large percentage of such cases.

Dr. Jaeger, in closing: Silver nitrate locally is best treatment for gonorrheal infection. Ichthyol not been found satisfactory. Old infections not so dangerous as recent ones. Cases should be examined carefully before confinement. Latent cases should be treated expectantly.

Attendance forty-seven.

Adjourned. Homer R. McKinstray, Secretary.

KNOX COUNTY

Knox County Medical Society met December 12 at Union Depot Hotel, Vincennes, for its election of officers and annual banquet. Election of officers resulted as follows: President, E. F. Small, Decker; vice-president, H. W. Held, Vincennes; secretary, H. D. McCormick, Vincennes; censor, P. H. Caney, Vincennes; delegate, Chas. S. Bryan, Vincennes; alternate, J. A. Scudder, Edwardsport.

The paper of the evening, "Carcinoma of the Uterus," was presented by Goethe Link, Indianapolis. This paper was very comprehensive and much appreciated by the society. Lack of time prevented full discussion.

Adjourned. H. D. McCORMICK, Secretary.

LAKE COUNTY

The annual meeting of the Lake County Medical Society was held in Hammond on Thursday, November 14, with twenty-five members present.

The election of officers for 1912 resulted as follows: President, E. E. Evans, Gary; vice-president, Eleanor Scull, Hammond; secretary-treasurer, E. M. Shanklin, Hammond; censor, T. J. Toner, Gary; delegate, E. M. Shanklin, Hammond; alternate, T. W. Oberlin, Hammond.

Dr. Evans gave the president's address, taking up the accomplishments of the organization during the past year, and giving many valuable suggestions for 1912.

The scientific session was followed by a "Dutch Lunch," prepared by the officers-elect.

The outlook for the coming year is very good, and a material increase in membership is anticipated.

Adjourned. E. M. SHANKLIN, Secretary.

MARSHALL COUNTY

The Marshall County Medical Society met in regular session December 28, and elected the following officers for the coming year: President, B. W. S. Wiseman, Culver; vice-president, R. C. Stephens, Plymouth; secretary-treasurer, A. A. Thompson, Tyner. Drs. L. Johnson, Bourbon, and C. E. Neusbaum, Bremen, were elected to membership.

Adjourned. J. W. EIDSON, Secretary.

PUTNAM COUNTY

The annual meeting of the Putnam County Medical Society was held in Greencastle, December 12. The following officers were elected for 1912: President, J. F. Gillespie; vice-president, Chas. F. Hope; secretary-treasurer, E. Hawkins; censors, Chas. Sudranski, J. V. Bastin and W. R. Hutcheson.

Dr. D. W. Layman, of Indianapolis, presented the principal paper of the evening on "Surgery of the Tonsils." The paper was limited to the operative technic and was explained and illustrated very concisely with the instruments and appliances used in the operation, and was exceedingly interesting and instructive.

Dr. M. Thorner, of Indianapolis, gave an informal talk on "Tubercular Cervical Glands" which abounded in good things.

There were several visitors present from neighboring societies, and the evening was thoroughly enjoyed by all.

Adjourned. E. HAWKINS, Secretary.

ST. JOSEPH COUNTY

Meeting of November 28

Society met in regular session with President Bosenbury in the chair. Seventeen members present.

Motion carried that minutes of previous meeting referring to revision of constitution be dispensed with. Minutes of previous meeting with exception of above were read and approved.

Dr. Hillman read a paper on "The Stomach, Its Embryology, Anatomy, Histology, Physiology and Pathology." General discussion.

In absence of chairman of special annual program committee, Dr. Shanklin read report of expenses of the meeting.

Drs. Shanklin, Baker and Berteling appointed to audit treasurer's books.

Adjourned. R. C. SHANKLIN, Secretary.

Meeting of December 5

Minutes of previous meeting read and approved. Regular order of business suspended and under miscellaneous business Dr. Bosenbury read a paper on "Some Unusual Types of Appendicitis." Discussion general.

Report of auditing committee accepted.

Election of officers for 1912 resulted as follows: President, S. A. Clark; vice-president, W. J. Baker; secretary-treasurer, R. C. Shanklin; assistant secretary-treasurer, R. L. Sensenich; delegate, H. T. Montgomery; alternate, H. F. Mitchell, all of South Bend.

Rising vote of thanks given Dr. Bosenbury for his very efficient services as president of this society during year 1911.

Letter from Nurse Association of city stating that their prices are $25 per week read. No action taken.

Twenty-seven members present.

Adjourned R. C. SHANKLIN, Secretary.

Meeting of December 12

President S. A. Clark in chair. Minutes of previous meeting read and approved. Sixteen members present.

Dr. J. B. Berteling read a paper on "Surgical Diseases of the Kidney." Discussion general.

Motion carried that secretary-treasurer be empowered to have necessary stationery printed for conducting affairs of his office.

Dr. H. M. Miller, of the lantern committee, was in Chicago and visited the McIntosh Co., and reports that a lantern with a projectoscope and slide attachments can be purchased for $80 and with microscope attachment $116; runs on 110 volts alternating current. Motion carried that this committee continue its work.

Motion made that society appropriate $15 for purchase of magazines for medical library. Tabled.

The following committees were appointed: Program Committee, C. E. Varier, C. C. Terry, Chas. Stoltz; Library Committee, Chas. S. Bosenbury, R. L. Sensenich, J. B. Berteling; Necrology Committee, H. L. Mitchell, W. A. Hager, C. M. Butterworth.

Adjourned. R. C. SHANKLIN, Secretary.

Meeting of December 19

Dr. S. A. Clark in chair. Minutes of previous meeting read and approved. Twelve members present.

Dr. H. T. Montgomery read a paper on "The Acute Inflammations and Chronic Atrophies of the Kidneys." Discussion general.

Motion carried that society adjourn until Jan. 2, 1912.

Adjourned. R. C. SHANKLIN, Secretary.

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ORIGINAL ARTICLES

SALVARSAN IN SIXTY CASES

FIFTY-SEVEN CASES FROM THE CLINIC AND THREE SELECTED CASES

BERNHARD ERDMAN, M.D.

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INDIANAPOLIS

The literature on salvarsan has grown to enormous proportions. The vast number of articles which have been and are being published in many journals is indicative that interest in salvarsan is not abating, rather growing.

It is the purpose of this paper to review sixty cases in which salvarsan has been administered, fifty-seven cases from the skin and syphilis clinic of the medical department of Indiana University, two cases seen by Drs. Brayton and Thrasher and one case selected from private practice.

STATISTICAL REPORT

Age.—The age of the patients varied from 6 to 53.

Sex.—Twenty-seven female, thirty-three male.

Civil Condition.—Twenty-four single, twenty-six married, seven widows, one widower, two unknown.

Race.—Fifty-one white, nine colored.

CLASSIFICATION OF CASES

Hereditary lues five cases, primary lues eleven cases, secondary lues twenty-six cases, tertiary lues seven cases, parasyphilitic one. Recrudescence after salvarsan one case, cancer two cases; one patient denied lues absolutely; no history or symptoms present in six cases, but with Wassermann positive.

It is interesting to note the proportions of females to males, twenty-seven to thirty-three; and also the fact that twenty-six were married while twenty-four were single.

The *Spirochæta pallida* was present in twenty-one cases, demonstration being made with the dark-ground illuminator. When present no Wassermann reaction is necessary. In the event that smears made from a primary lesion were negative, scrapings from the tonsil were examined and spirochetes frequently demonstrated.

The Wassermann reaction was made fifty-three times.

Total number of injections sixty-one.

In the beginning, the alkaline solution was given in the buttocks, intramuscularly, but after Ehrlich's announcement that the intravenous method was the method of choice, it was used exclusively. It is interesting to note that in all the cases where the Wassermann was made it was positive.

The variation in the rapidity of the hemolysis is noteworthy.

In hereditary lues and all primary cases, the invariable result was 100 per cent. positive.

In a case presenting ulcer of the leg, the Wassermann was as low as 25 per cent. positive.

Before salvarsan was administered the Wassermann reaction was 100 per cent. positive in thirty cases; 75 per cent. in one case; 50 per cent. in three cases; 25 per cent. positive in one case; slightly positive and 10 per cent. negative in one case.

After one injection of salvarsan, the Wassermann reaction was 100 per cent. positive in eight cases. In one case, 100 per cent. positive reaction dropped to 75 per cent. and later to 50 per cent. In two cases 75 per cent. positive. In one case, 10 per cent. negative and in one case delayed.

In one case the Wessermann remained 100 per cent. positive after the second injection.

The history of the patients was obtained from the standpoints of age, civil condition, race, occupation, present trouble and past history before the customary eye-examination. Lately there has been added thorough examination of the ear. In the presence of the initial lesion, lesions of the mouth or throat, *Spirochæta pallida* determination was made by the dark-field illuminator in the laboratory.

In the absence of lesions mentioned, the blood was drawn for the Wassermann reaction. A positive report completed the history taking and the salvarsan was administered.

INDICATIONS

Salvarsan is said to be indicated in all stages of lues, and accompanying symptoms; malignant lues, obstinate affections of the mucous membranes, in pregnant and nursing women, and in cases where mercury is not well tolerated. The suggestion is offered for its use in various spirilla diseases, frambesia, lichen planus, relapsing fever, malaria, marsh fever and diabetes of mild type. Further experience with the drug will determine its greatest field of usefulness.

GENERAL CONTRA-INDICATIONS

Disturbances of the circulatory apparatus, and fetid bronchitis seem to be the only contra-indications other than patients who exhibit a marked idiosyncracy toward arsenic.

It is said to be inadvisable to administer the remedy to individuals who have been taking arsenic in other forms.

Ancient or present ear disease has lately been added as a further contra-indication.

METHOD OF EMPLOYMENT

While it is true that various methods are used, the intravenous seems to be the favored method. Many men continue the injection of the remedy in oil suspension, some advise the combined method, intravenous followed by intramuscular. The methyl alcohol solution is still used. One writer advised the use of one-tenth gram salvarsan suspended in oil of sweet almonds weekly until the Wassermann is negative. Another, the intravenous followed by subcutaneous injection four days later and the second intravenous one month later. Another writer gives the intravenous injection followed by mercury and later a second intravenous injection. The intravenous method was adopted in the clinic exclusively after the alkaline solution had been used in about six cases. The patients in most instances are about their usual employment in from twenty-four to forty-eight hours. There is practically no pain and no liability to abscess formation. The apparatus in use in the clinic consists of an ordinary intravenous bottle to which is attached a rubber tube about one-fourth inch in diameter and about 4 feet long. The needle is an ordinary aspirating needle of moderate caliber.

COMPLICATIONS

Complications arose in but two of the fifty-seven cases from the clinic. In one case the patient suffered from a paraphlebitis, probably brought about through lack of skill in the introduction of the needle. In the other the intravenous salvarsan was followed in about eight weeks with marked dizziness, roaring in the ears, tendency to fall, and inability to walk without assistance or in the dark. A careful examination of the eyes made by Dr. Heath at this time showed no changes.

The ear examination as reported by Dr. Coble is as follows:

The left drum membrane is normal in appearance and the hearing tests normal.

The right drum membrane is slightly indrawn, the auditory nerve reacting well to whisper, voice and tuning forks.

No nausea or vomiting at any time. There is some tinnitus present, confined to the right ear and to the extent of causing slight annoyance. No nystagmus appears after hot and cold water irritation. Following catheter inflation a feeling of comfort was established in the right ear and the tendency to fall seemed less marked.

On account of no definite constitutional lesion, I am inclined to place this present trouble to labyrinthine disturbance.

The neurologic examination, made by Dr. Neu, is herewith presented:

REPORT OF DR. NEU

June 29, 1911.

Dear Dr. Erdman:—I beg to submit the following report of the neurologic examination of your patient, Mr. M.:

The motor functions show no evidence of paralysis, paresis, spasms, twitchings or tremors in the facial, ocular, speech, arm or hand musculature. The gait is staggering and swaying, incoordinate and ataxic. Rhomberg's phenomenon is marked even with eyes open, but much intensified when eyes are closed. There is inability to carry out the heel-to-toe movement without swaying or balancing himself, but very little incoordination in the heel-to-knee movement when lying down. There is a subjective feeling of weakness of the neck muscles. Sensations and

special sense functions are all apparently normal. The reflexes, superficial, deep and organic are normal in reaction except that the knee-jerk is possibly slightly decreased.

The trophic, vasomotor and secretory functions are not impaired. Cerebral disturbances consist of some suboccipital pain and distress, impairment of the eyesight (blurring and indistinctness) with a feeling of dizziness and of uncertainty of position when the head is jarred.

The intensity of the ataxia and incoordination of the movements of the lower extremities, together with the peculiar disturbance of vision as produced, and the absence of any definite indications of a focal disease of the brain rather inclines me to regard the labyrinth as the more probable seat of the trouble.

Respctfully submitted, C. F. Neu, M.D.

The Wassermann reaction made by Dr. Thrasher was reported negative. He was now supplied with a quantity of one-fourth grain tablets of mercury protoiodid and instructed to take three, four or five daily as tolerated, and 15 grains of potassium iodid three times daily. He began to recover after two weeks of this treatment, and was not seen by me until four months later. The ataxia and all other symptoms had disappeared. The Wassermann was now 100 per cent. positive.

The three cases added to fifty-seven from the clinic are two seen by Drs. Brayton and Thrasher, and one from private practice.

Case 1.—Melanotic cancerous nodules of the skin widely spread, having their origin in a congenital rough mole on the right buttock, about one-half inch in diameter. About three weeks after the first, a second injection of salvarsan was given with no improvement. The patient died about five months later from cancerous cachexia. No Wassermann was made in this case.

Case 2.—A patient about 40 years of age, male, seen at the Methodist Hospital. A growth on the face, which seemed to extend into the antrum of Highmore or to involve the superior maxilla, hard with elevated border was the lesion. The Wassermann in this case was 75 per cent. positive. Alleviation of pain was the only effect of the salvarsan.

Case 3.—An individual of 26 who received an intravenous salvarsan April 23. May 28 he developed vertigo, nausea and ringing in the left ear. Wassermann reaction at this time was negative. Two subsequent examinations about three weeks apart were negative. The nausea, vertigo and interference in locomotion disappeared but the ear condition has remained permanent up to this time. Examination by the aurist disclosed no pathologic conditions present.

RESULTS

Results parallel those obtained by others using the drug. Primary and secondary lesions heal promptly. In ulcer of the leg the improvement was not so marked as has been reported by some authors. Particularly brilliant were the results in two cases. One case, a girl of 19 suffering from interstitial keratitis and vestibular disease, probably hereditary luetic, returned to the clinic forty-eight hours after the injection wonderfully improved. She could hear ordinary conversation, whereas before the injection one was compelled to shout to attract her attention. The ataxia as well as the vision was also improved.

Another case, a man with a palmar syphilid of ten or twelve years' duration, returned to the clinic one week after the injection with a greater improvement than had been effected in a number of years' treatment with mercury and potassium iodid.

In reviewing the literature, several things stand out prominently: (1) One dose of salvarsan does not cure the disease. (2) The great value of the treatment is in early syphilis — primary lesion present and before the appearance of secondary eruption. It has been my opportunity to observe this fact in three cases. In one case the organisms were demonstrated within twenty-four hours of the appearance of the lesion, and the salvarsan administered twenty-four hours later. No secondaries ever appeared. (3) The variation in the Wassermann reaction:

a. The Wassermann becoming negative and remaining negative.

b. The Wassermann becoming negative and returning to positive.

c. The Wassermann negative in the beginning becoming positive later.

(4) Treatment, salvarsan followed by thorough treatment with mercury and iodin, and later salvarsan if indicated.

CONCLUSIONS

In closing, I beg to state the following conclusions:

1. A single injection of salvarsan rarely, if ever, effects a cure.

2. In all probability the greatest field of usefulness of salvarsan will be in early syphilis. This is true especially from the sociologic standpoint. Especially is this true in innocent lues of unmarried young women.

3. The intravenous method should not be used in the presence of severe cardiac, arterial or brain lesions. *In the presence of any disturbance of*

the circulatory apparatus it is always advisable to test the blood-pressure.

4. Administration of the drug should be preceded by careful physical examination, and careful examination of the eye and ear, in order that exact data may be had as to whether or no the salvarsan or the syphilis is the cause of the complications.

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HYPERTHYROIDISM *

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Less than twenty-five years ago goiter, especially the misnamed exophthalmic variety, presented so formidable an aspect from a surgical standpoint, that there were few surgeons bold enough to attack it. The surgical history is, therefore, extremely meager. It remained for Theodore Kocher, the pioneer in goiter surgery, by practical demonstrations, first in hundreds and later in thousands of cases, to place the surgery of the thyroid on a safe and substantial basis, and to rob it of its dangers, e. g., the danger of the anesthetic, the danger of shock, of hyperthyroidism, of injury to the recurrent laryngeal nerve and the parathyroids, and thereby demonstrating that the skilfully performed thyroidectomy is not the extremely dangerous operation that the earlier surgeons had pictured.

Among the foremost contributors to our present knowledge of goiter was Moebius, whose researches demonstrated the fact that the symptoms of exophthalmic goiter were caused by a hypersecretion on the part of the diseased gland and which entered into the circulation throughout the lymphatic system.

Rehn was probably the first to advance the idea of exophthalmic goiter, twenty-five years ago. Tillaux, in 1880, also demonstrated the splendid results of treatment of exophthalmic goiter in a few selected cases. However, to Kocher and to Moebius belong the laurels, for there is no doubt that our present knowledge of goiter is a direct result of the surgical work of Kocher, in simple goiter, together with the pathology and physiology of the disease as advanced by Moebius.

I do not wish to convey the idea that the entire subject of exophthalmic goiter originated within the last quarter of a century, for such, indeed, would be erroneous.

Clinically, exophthalmic goiter has been a subject of contention for a number of years, as is evident by the various names by which it is known, e. g., Graves' disease, Morbus Basedowii, etc.

As far back as 1786, Parry described the disease clearly. In 1800 an Italian physician by the name of Flajani described a disease which was undoubtedly that of exophthalmic goiter. In 1835, in England, Graves published certain lectures describing this disease, and from which the name Graves' disease originated.

In 1840 Basedow, in Germany, also described this disease, from which we have the name Morbus Basedowii.

The observations of von Graef, Charcot and Stellwag, all between the years of 1856 and 1866, throw considerable light on the subject. The most important contribution, however, was that of Moebius, whose researches in 1868 established the generally accepted theory that the symptoms of exophthalmic goiter were caused by the entrance into the circulation of a secretion of the diseased thyroid gland, or, in other words, to a form of poisoning, and not to a lesion of the central nervous system, as was generally supposed.

Of recent years surgery of the thyroid has made such rapid strides from an etiologic, anatomic and physiologic standpoint, that a partial removal of this important organ is no longer looked on with fear. In fact, thyroid surgery has attained such a degree of efficiency that a skilfully performed thyroidectomy on a properly selected case is one of the least dangerous of major operations.

I emphasize the point properly selected cases. Not every case of goiter, either simple or of the so-called and misnamed exophthalmic variety, should be surgically considered. In fact, simple goiter is primarily medical. The surgeon is very apt to lose sight of this important fact, because the cases which apply to him for relief are cases which have failed to respond to internal treatment, and it may appear to him from his own experience that internal treatment always fails to cure goiter, because it has always failed in all the cases that have come under his care. As a matter of fact, 50 per cent. of the cases of goiter will recover spontaneously, or under proper hygienic, dietetic and medicinal treatment. Twenty-five per cent. will recover if, to the dietetic, hygienic and medicinal treatment the injection of, for instance, carbolic acid be added, while the remaining 25 per cent. will resist every form of treatment except excision.

So much for simple goiter. There is a vast difference in the importance of non-surgical treatment of simple goiter and of exophthalmic goiter.

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* Read before the Indiana State Medical Association at Indianapolis, Sept. 28, 1911.

Simple goiter, as long as there is no hypersecretion of thyroid extract may be subjected to medical treatment *ad infinitum,* or as long as the patient is willing to endure the unsightly appearance.

It is far more important that cases of exophthalmic goiter be subjected to early surgical treatment in case the non-surgical treatment should be futile. In hyperthyroidism, prolonged and non-surgical treatment of cases in which there is no improvement, always leads to serious changes of a degenerative nature, which will soon reach the point, at or beyond which surgical interference is contra-indicated, or, the operation being undertaken, these changes will be found to have advanced to such a degree as to leave the patient little better than before operation.

The following case history illustrates well the disastrous results of too prolonged expectant treatment in cases of thyrotoxicosis:

Patient.—Mrs. ——— consulted me six months ago, seeking relief from the ravages of thyrotoxicosis. This patient, whose age was 46, had had a goiter since her 23d year, which was not large and caused her no inconvenience, being probably a simple goiter. At 43 years of age she passed through the menopause. Simultaneous with the menopause symptoms of hyperthyroidism became apparent, and in six months from the time of onset the thyrotoxic symptoms were well marked. At first her condition was not recognized by her physician and she was sent to the seashore to rest and recover from a nervous breakdown and from cardiac insufficiency. It was not until after the exophthalmos became apparent that a correct diagnosis was made and patient placed on proper treatment. The symptoms, however, resisted every form of medical treatment. A year was lost in fruitless efforts to bring about a cure. As a last resort operative measures were accepted, and after having previously ligated the thyroid arteries, the gland, excepting the isthmus, was removed, but not until the patient had wasted four years of valuable time, three of which were wasted from want of a proper diagnosis.

There was little benefit derived from the operation. The cause was removed, but the damage was done. The patient had sufficient power of resistance to recover from the operation, which served to stop the progress of the disease, but the degree of degeneration had advanced so far that the power of recuperation was entirely lost, consequently the patient remains weak and excepting that the progress of the disease is stopped, she is little better than before operation.

Patient.—Mr. W., aged 40 years, consulted me last October, complaining of nervousness and gastro-intestinal disturbances and emaciation. He was in good health until the summer of 1908, at which time he noticed a slight tumor, and was conscious of palpitation of the heart, especially noticeable after a slight shock of any description. In a few weeks he developed a temperature, followed in a short time by gastro-intestinal disturbances, night sweats and loss in weight. The condition was diagnosed as possible typhoid infection and suitable treatment instituted. The condition persisted all summer, but during the following winter there was an abatement in the symptoms to such an extent that the patient was able to return to work. The following summer there was a return of the symptoms in a still more aggravated form. I saw him for the first time Oct. 10, 1910, at which time he was much emaciated, weighing 115 pounds. He was very nervous. Tremor was very pronounced. He complained of intermittent vomiting without apparent exciting cause; also intermittent sweating, muscular weakness and mental depression. Examination revealed marked emaciation, visible cardiac pulsation over entire left chest, with pulse-rate of 160. There was possibly a very slight degree of exophthalmos present. There was no enlargement of the thyroid gland. From the tachycardia, tremor and possible exophthalmos, a diagnosis of hyperthyroidism was made. Thyroidectomy was performed with all possible speed, from which the patient made an uneventful recovery, and at present is entirely free from all symptoms, excepting palpitation and shortness of breath on exertion.

Patient.—Mrs. L., aged 50, consulted me last May, from whom I obtained the following history:

She comes from a family of goiters. Her mother and father both died of goiter, possibly exophthalmic variety. Two sisters and one brother both have goiter in the simple form. The patient was the only one of the family who was fortunate enough to escape an enlargement of the thyroid. She has had four children, three of whom have simple goiter, and one of whom, a girl 18 years of age, is, from the patient's description, suffering at the present time from hyperthyroidism, having an enlargement of the thyroid with thyrotoxic symptoms.

The patient also gives a history of occasional attacks of nervousness, accompanied by cardiac palpitation, diarrhea and a low grade of fever. One point in the diagnosis was the fact that these attacks at first generally followed a sudden and slight nervous shock of some description and were especially noticeable at the menstrual period. They were at first of two or three days' duration, but of late have been growing more prolonged and also more frequent. Since passing through the menopause these attacks have become still more frequent and also more severe. Her condition has been diagnosed typhoid fever, malaria, nephritis, etc., for each of which she has been treated at different times.

Examination revealed an anemic patient, showing marked emaciation, but no cachexia. A possible exophthalmos. No discernible enlargement of the thyroid. There was marked muscular tremor. A visible pulsation of a heaving character visible over almost the entire left chest anteriorly. Nervous symptoms were pronounced. Von Graef and Stellwag signs were both present. From the history and examination, although there was no apparent and only a possible palpable enlargement in the thyroid and no protuberance of the eyes, a diagnosis of thyrotoxic poisoning was made. A thyroidectomy was performed with all possible speed, from which the patient made an uneventful recovery. Her subsequent restoration to health with complete abatement of all symptoms, this together with the pathologic findings of the diseased gland, confirmed the correctness of the diagnosis.

That an early diagnosis of hyperthyroidism is of the utmost importance, there can be no doubt.

There is no disease in which familiarity through repeated contact is of greater aid in making a diagnosis. In typical cases, with enlargement of the thyroid, rapid heart, exophthalmos, etc., the diagnosis is indeed simple. It is in that class of cases in which there is no discernible nor palpable enlargement of the gland and no exophthalmos where one encounters the greatest difficulty in arriving at a correct diagnosis. Recently it has been claimed that a diagnosis of this disease can and must be made in case tachycardia is present, which cannot be explained on any other pathologic theory, in any given case, especially if several of the other symptoms, but neither exophthalmos nor goiter are present. When either of these two symptoms are present, together with tachycardia, all authorities agree on a diagnosis.

Early cases of hyperthyroidism permit of no argument as to the course to pursue. Most certainly every case should be subjected to medical treatment and kept under close observation by a competent observer. If there is not an immediate and progressive improvement under the expectant treatment, the case becomes a surgical case and must be referred early to the surgeon before the ravages of the thyrotoxic poisoning have so reduced the resistive powers that regeneration is impossible. In this respect thyrotoxicosis is comparable to appendicitis. We advocate operative interference in cases of appendicitis before peritonitis has had an opportunity to develop. Even so should we advocate the surgical treatment of goiter before irreparable destructive changes have taken place. For the purpose of early operative interference one can readily see the value of early diagnosis and careful observation, together with sound judgment, especially as to the condition of the patient, whether a subject for immediate complete operation, or the ligation and subsequent operation, or whether it is a case for operation at all or not. From my own experience I am convinced that some cases, aside from the immediate dangers of the operation, should not be operated on, I refer to those cases where the destructive change is so far advanced, that although an operation would possibly not result fatally, still there would be no benefit derived from surgical interference.

It is in this class of border-line cases which tax the operator's judgment to the utmost. Not only must the question, Will the operation be of any benefit to the patient? be answered, but the surgeon must also decide as to the patient's condition, her vitality, is she in condition for an operation at all, and if so, how much shock will she be able to resist. Is it a case for immediate complete operation, or is it a case for the several steps operation? All of these points must be decided, and in this class of cases the safety and life of the patient depend on the good judgment of the surgeon as much as they depend on the skill and rapidity of the operation.

I know of no fixed rules in determining whether a given case is a suitable one for operation or not. Each case is a law unto itself and must be so considered. A patient who has had a prolonged rest and whose heart action in consequence of this rest and preparation, is quiet, may, thereby, give an entirely false idea as to the ability to withstand the shock and other dangers accompanying an operation: on the other hand, a patient coming from a distance, amid strange surroundings, one whose personal appearance alone would at first glance contra-indicate operative measures, may, although the degenerative changes may be marked, give the impression of a far greater risk than is actually the fact.

Shock and hyperthyroidism are two factors to be reckoned with in selecting cases for operation. We know from experience that even the thought of an operation is enough to produce marked hyperthyroidism in some patients, and we also know from experience that acute hyperthyroidism following an operation for exophthalmic goiter is one of the most serious and most frequent complications. In view of these facts, it has been found advisable to subject patients to a certain amount of shock or fatigue as an index as to how they will behave on the operating table. Such methods conscientiously carried out cannot help but be productive of results and will afford one a

better understanding in selecting border-line cases for operation.

I know of no other criterion by which one may be guided. As to whether the blood-count is an index as to a patient's resistive powers is still a matter of dispute.

The cases of hyperthyroidism which have come under my observation have all shown a low blood-pressure, hemoglobin averaging about 65 per cent., and a decided increase in the mononuclear elements. Whether this retrograde movement runs parallel with the diminution in the patient's resistive power, I am unable to say.

In conclusion, I will reiterate that the subject of exophthalmic goiter is one of vast importance. The welfare of the patient depends on the early recognition of the disease and the proper interpretation of its progress and early operation in those cases where medicine fails. In late cases a proper selection of cases for operation, keeping always in mind the important question, How much shock will the patient be able to withstand? Shock induces hyperthyroidism, which, in an already long-suffering patient, is almost necessarily fatal.

I am convinced that attention to details, coupled with rapid and careful operative technic, will reduce the mortality to a far less percentage than that of the medical treatment in similar cases.

DISCUSSION

Dr. A. E. Sterne, Indianapolis: Mr. Chairman and Gentlemen: This subject is one of very great interest to physicians and surgeons alike. It is one that is hardly to be touched on in the time allotted to the discussion, and yet much can be said and crystallized into a few words. First of all, we must not fail to recollect that our conception of exophthalmic goiter is even now undergoing very considerable changes. We do not yet positively know the cause of exophthalmic goiter, and we are treating this malady empirically at the present time, and every operation for exophthalmic goiter is an empiric operation. Let me divide this subject, as the essayist has done, and look at it for a moment therapeutically, first of all, dividing the cases into those which seem to be medical and those which seem to be surgical. That is a purely arbitrary division. I take it that every case that is medical may become surgical and every case that is medical sometimes can be brought to a surgical standpoint. In other words, every case, before it is operated on, must be converted from a poor into a good, or fairly good, surgical risk. The mortality of the operation for exophthalmic goiter used to be higher because we disregarded this principle. We have no mitigation unless it may be through Beebe's serum, or some similar serum, which must show results better than have been shown by it up to the present time to cure this disease. I think we may reach that desired standpoint, but at present this has not been done. The results of medical treatment, as a whole, are not satisfactory. There is no form of medication, whether we take the digitalis group, or whether we take the belladonna group or iodins or thyroidectins, except in some individual case, which gives us the desired results. Iodin and the iodids may act deleteriously. They should be used cautiously, if at all. By far, in my experience of twenty years or more, the very best medicine is rest—prolonged rest and feeding and conservation of the forces of the individual. To be sure, use your medication in addition to rest, but it is the rest and the feeding, in my estimation, which does the work and brings about the good result.

In the beginning, cases of exophthalmic goiter—my experience being like that of Dr. Jones—show an increased arterial tension. It is only when the heart muscle begins to flag—biologic changes beginning to show in the heart muscle—that fall in the arterial tension is apt to occur, and that is a signal of danger to the individual. He should be put positively in the prone position at rest; I mean rest in bed, not for a few days, but if necessary for weeks; it may even extend to months of rest and the avoidance of all shock, to which the essayist has ascribed a great deal of importance and correctly. By these means we can bring a patient, in the beginning a poor surgical risk, into a fairly good risk. And, furthermore, with modern procedure, we can even at the bedside with Crile's latest methods operate on patients, probably without shock. I think Dr. Crile's work is to be lauded. He has now operated some several hundred times at the bedside of the patient, step by step, if necessary, conceiving that the fear of operation is more productive of harm than the operation itself, and he is quite right. It makes no difference what form of procedure we expect to take, rest, prolonged rest, if possible, should take place prior to any operation.

Now, to come to the question of the operation. We have several methods by which we may proceed. Whether we ligate the poles and cut off the lymphatic supply in accordance with Jacobson's idea; whether we ligate the blood-vessels one at a time or several at a time, or whether we extirpate the gland to greater or lesser extent, it makes no difference; the question of shock always remains of paramount importance, and then, too, the question especially of doing the operation in an absolutely dry form. It is the absorption of blood with the secretion of the thyroid into the system which causes the after-effects so disastrous. In these cases we must remember that we are dealing with a condition, when we operate, rather than the disease itself. We are dealing only with one of a number of symptoms. We are dealing

with a very active agency which is causing a number of symptoms, but we never through operation, to my mind, reach the cause of the disease. We take out one of the elements in play and thereby remove a lot of collateral symptoms. We are operating for hyperthyroidism, we are not operating for exophthalmic goiter. Now, the results of the operation in expert hands have been excellent. One cannot help but admire the work of Charles Mayo and of Crile and others. The results are very good, but they are not cures and nobody claims that they are that I know of, at least not those men whom I have mentioned. They rightly claim that they are obviating the most disastrous effects on the general system by overcoming the increase of secretion and the absorption of it. To my mind in every instance in which we have made the diagnosis of "exophthalmic goiter," if we can possibly do so, we should proceed as follows: We should place our patient at rest for a sufficient length of time, and use every means at our disposal, baths, massage, medication, etc., to raise that patient's general condition. If, after a reasonable period of time, the symptoms do not ameliorate, the tremors disappear and possibly the polyuria and the increased sweating and the tachycardia lessen, even though the size of the goiter may not be appreciably influenced thereby, for the gland may not be much enlarged at all, as often is the case, when, after a given length of time, say eight to twelve weeks, the patient still shows marked symptoms of hypersecretion, then we should proceed to operate. I believe in the end this condition should be looked on, nearly always, as surgical.

In regard to the diagnosis, just one word: the trinity of symptoms, tachycardia, exophthalmos and enlarged thyroid—they are frequently not all present together—either of the other two with tachycardia, which should always be present, permits the medical diagnosis of "exophthalmic goiter," as Dr. Jones has said. When we find constant tachycardia with tremors and with polyuria, even without exophthalmos and enlarged thyroid, or if we have these only on one side, then the diagnosis is still to be made. If we find exophthalmos alone, notably with a von Graefe positive, then the tentative diagnosis may be made even in the absence of tachycardia, because exophthalmos usually, though not always, means Basedow's disease.

DR. HUDSON: The question of exophthalmic goiter is receiving rather new emphasis in recent years, because of the physiologic and mechanical studies in regard to its conditions: the exophthalmic conditions and other symptoms usually found in cases of exophthalmic goiter are not always accompanied by hyperthyroidism, many lesions occurring which are capable of producing the same symptoms by reason of the hyperthyroidism which is accompanied by the enlargement of the thyroid gland. The thyroid gland is the only gland in the body, as was found by a great many experiments, which secretes iodin, and as this is found in exophthalmic goiter, the thyroid gland must be accountable for this disease. There are a great many causes given for the disease. Some go so far as to say that it is an expression of hysteria or a disease of the central nervous system. Some doctors believe that it is an infection. An experiment has been made in Switzerland, where some thirty or forty men drank water which was infected with extract from goiters, and in these cases it was found that something like 40 per cent. of these people began to develop goiters. On the other hand, when another set of people of normal conditions drank water in this goiter community which had been filtered or sterilized, there was no symptom of goiter.

In the case of an operation, the medical aspect should be confined to the treatment of the disease so long as the disease has not set up in the thyroid itself, so long as the disease is in process of formation it would seem that the medical treatment should be continuous because in many cases it will get well under medical treatment. The thyroid extract has not been used much in this country. It is not supposed that medical treatment can cure, but simply carries a component that neutralizes the thyroid secretion and diminishes the effects produced in the hope that the original cause will gradually pass away. But when the affection of the thyroid itself has continued for a long period, then the only method we have is surgical procedure, either electrolysis or an operation.

INFANTILE PARALYSIS, OR ACUTE ANTERIOR POLIOMYELITIS *

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One of the notable group of mysterious diseases whose secrets are being revealed by scientific investigation, is poliomyelitis anterior, or infantile paralysis.

Within the past five years there have been reported more cases of this disease than in all the previous history of medicine. The disease has long been suspected of being contagious. A brief résumé of its recent history will undoubtedly confirm the suspicion.

Starting in 1905 from Scandinavia, where the disease has frequently occurred, it spread throughout that peninsula, until within two years

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over 1,000 cases had occurred. It then crossed the ocean and appeared in New York (1907) and that epidemic of 2,500 cases is by far the largest known. Within two years (1909), Nebraska reported over 600 cases, Kansas eighty cases, and Massachusetts nearly 1,000.

As early as 1841, a group of eleven cases was observed in one community in Louisiana. Medin, at the Fourth International Medical Congress, in 1900, reported a series of forty-three cases in Stockholm, and was the first to call particular attention to the epidemic nature of the disease.

Geirsvold made a very careful study of 437 cases occurring in Norway in 1905. In a number of cases he was able to trace the spread of the disease by contact from one village to another and from house to house.

Wickman, who made a thorough study of over 1,000 cases in Sweden the same year, believes that his records prove conclusively its contagiousness. He found many cases occurring in the same house; often two or more members of the same family were affected. In the majority of cases, some contact could be traced between one patient and another, and even the spread from one village to another could be accounted for by the passage of individuals.

It is said by Starr that the care with which Wickman investigated this epidemic had not been equaled in the study of any other epidemic, and his evidence went far toward convincing the profession that the disease is contagious.

In Shidler's report of the New York epidemic, 44 per cent. of his cases were where there were two or more children in the family, all of whom contracted the disease.

For many years all efforts to inoculate animals with poliomyelitis were unavailing. Within the past year, Flexner and Lewis, of the Rockefeller Institute for Medical Research, succeeded in producing the disease in monkeys. Their first successful inoculation was via the cerebral meninges, using an emulsion from the cord of patients who had died of poliomyelitis. Later, they succeeded in producing the disease by rubbing the virus into abrasions of the nasal mucosa of the animals.

It is significant that not only was the virus capable of being *absorbed* by the nasal mucosa, but was also *excreted*. They succeeded in producing the disease by inoculating with the nasal secretions of animals ill with the disease. Thus they not only demonstrated the infectious nature of the disease, but also the route by which the infection is probably transmitted.

The virus may retain its virulence for a long time in the nasal secretions. In one instance an animal was successfully inoculated from the nasal secretions of a patient who had had the disease nearly six months before.

Leiner and Wiesner produced the disease by introducing the virus into the stomach and intestines, by inhaling an emulsion of the virus and by implanting it into the trachea.

INCUBATION

This experimental work has also given us more definite knowledge as to the incubation period.

From clinical observation it seemed that the time of incubation was variable, paralysis appearing all the way from three or four days to thirty days after the exposure, the usual period being eight to ten days. Animal experiments have fully corroborated the accuracy of these observations.

In the long series of experimental cases, it was evident that the disease increased in virulence with the passage through successive animals. This explains the fact previously noted by clinicians, that epidemics have a much higher mortality than sporadic cases.

BACTERIOLOGY

Bacteriologists have not yet succeeded in demonstrating any constant specific organism. It is either of ultramicroscopic size or is not amenable to present staining methods. The virus passes unchanged through the finest filters.

PATHOLOGY

The pathology of the disease has for some years been known to be a degeneration of the motor cells in the ganglia of the anterior horns of the cord. A few points remain obscure. What is the reason for the decided preference for the anterior horns? Why are certain areas of the cord, notably the cervical and lumbar enlargements, especially vulnerable? Is the degeneration in the anterior horns a primary lesion, or secondary to other parts of the pathologic process?

The consensus of opinion now is that the infection is primarily a vascular one. This theory explains as well or better than any other, the established facts of the pathologic process, and better than any other theory yet advanced, the peculiarities of its distribution.

ANATOMY

The spinal motor cells lie in spindle-shaped bundles in the anterior horns of the spinal cord, being chiefly located in the cervical and lumbar enlargements. One group of motor cells will send impulses to two or more muscles, and on

the other hand, one muscle will receive motor impulses from more than one group.

The blood-supply of the anterior horns: The chief blood-supply of the anterior horns is from the anterior spinal artery, located in the anterior fissure and running the entire length of the cord. Given off from this anterior spinal artery are lateral horizontal branches entering the cord at different levels, about 200 in all. Entering the anterior horn, they terminate in a net-work after subdividing into various branches. Each of these central arteries has ascending and descending branches covering an area in the length of the cord of from 1 to 2 cm. These branches are terminal arteries and do not anastomose with each other. Each motor cell gets its blood-supply from several branches of one central artery, or from those of more than one central artery.

The main fact is that, on the whole, the groups of motor cells run in the length of the cord and have their associations in this direction, and that the blood-supply is mainly horizontal, hence, unless the lesion is very extensive, some cells in a group are likely to escape destruction. The utilization of such remaining cells in partly destroyed groups becomes, therefore, one of the most important objects of treatment.

One of the earliest demonstrable lesions is an inflammation of the pia mater, surrounding the medulla and pons. In severe or fatal cases, the meninges of the entire cord are involved, most markedly along the anterior surface and fissure. In the meninges and gray matter of the anterior horns, and to a less extent in the white matter, there is found congestion and stasis of the capillaries, with occasional small hemorrhages in the gray substance; infiltration of the perivascular lymph spaces and tissues with small round cells; a few polynuclears in the gray substance; mostly large and small lymphocytes in the meninges and white substance. Thrombosis is rarely observed. At times this infiltration is sufficient to impede circulation and so impairs the nutrition of the surrounding tissues.

The degeneration of the motor cells is commensurate with the degree and persistence of the vascular obstruction. The greater involvement of the anterior horns is due to their greater vascularity. The vessels of the anterior horn are most involved because they are the largest and most numerous. It is therefore apparent why the anterior horns are the site of the lesions, since they derive their blood-supply from these vessels. The inadequate collateral circulation of the anterior horns still further facilitates these destructive lesions.

The cellular elements of the exudate are first a few polymorphonuclears which are early displaced by large and small lymphocytes, derived from the endothelium of the capillaries and lymph channels. It is probable that this cellular exudate occurs quite early and with about the same elements into the cerebrospinal fluid.

IMMUNITY

An attack of poliomyelitis usually renders the individual immune. Second attacks have been observed, but are rare.

Attempts to reinoculate monkeys that had had the disease were unsuccessful. Dr. Flexner succeeded in producing an active immunity in monkeys by the injection of a modified virus, but states that this experimental basis is insufficient to justify the attempt to utilize the method as a protective measure in human beings. Dr. Flexner summarizes his experiments as follows:

1. A neutralized mixture of virus and immune serum does not lead to any degree of active immunization.

2. The therapeutic action of an immune serum is associated with restraint of multiplication of the virus such as would be required to establish any grade of immunity.

3. A simple passive immunity is either not produced at all by the serum injections, or is of brief duration or small account.

SYMPTOMS

The large number of cases observed in recent epidemics has changed somewhat our conception of the symptomatology of the disease. The classical description based on the observation of occasional sporadic cases no longer covers the wide variation of clinical types.

Since the symptomatology is dependent on the anatomic distribution of the lesions, the classification is also anatomic. Wickman classified the disease into eight types, but a simpler classification into fewer groups will probably cover the cases usually observed.

The spinal.
The bulbar.
The meningeal.
The polyneuritic.
The abortive.

To this Wickman added a progressive form, a cerebral and an ataxic form.

McClanahan has made a special effort to classify the clinical varieties reported in the Nebraska epidemic. A total of 989 cases were grouped as follows:

Cerebral type	107
Bulbar type	86
Polyneuritic	113
Ordinary	495
Unclassified	188
Total	989

In the spinal, or common, type, the disease frequently appears abruptly. Occasionally, however, there is a history of prodromal symptoms, such as general malaise and fretfulness. A change in the disposition is frequently mentioned as an early symptom. Coryza or bronchitis are frequently present. After a few days, fever is noticed. It seldom rises higher than 101 or 102 F., and usually lasts from two to four days. Then appears a group of symptoms so commonly observed when fever from any cause is present, viz., headache, pains in the back and limbs, gastro-intestinal symptoms, restlessness or sometimes drowsiness. Occipital headache is almost constantly present, and is usually severe. Pain and hyperesthesia of the back and limbs are common. Nausea and vomiting are present in about one-third of the cases of this type, and constipation in about the same proportion. Diarrhea is less common. Sweating has been mentioned as present in many cases and the fact that in most febrile diseases the skin is dry and hot, gives the symptom some value. Retraction of the head and rigidity of the neck are present in severe cases. The reflexes are usually exaggerated during the fever and absent after the paralysis appears, returning with restoration of function.

PARALYSIS

The paralysis usually appears within two or three days from the onset of fever. It may be fully developed when first observed. On the other hand, a weakness or diminished mobility of some part may first appear, followed gradually by more severe involvement and extension to other parts.

After the paralysis has existed for twenty-four to forty-eight hours, further extension is not expected. Sometimes recovery begins at once and the affected parts rapidly regain their normal mobility.

I have observed cases of this kind. Usually, however, there is a period, varying from a few days to two or three weeks in which there is little or no change apparent. There then begins a gradual restoration of function which may be limited to a few days or weeks, or may continue for from one to two years.

The bulbar type of the disease is that in which there is severe involvement of the upper part of the cord, with symptoms of dyspnea and respiratory failure.

This may be a primary manifestation; i. e., the inflammation may be severe in the pons and medulla from the beginning, or it may arise during the acute stage of any of the other types, which means that the inflammatory process has extended until these vital centers have become involved.

In the meningeal type, the meninges of the cerebrum, cerebellum, pons and medulla are early involved. The symptoms resemble those of cerebrospinal meningitis. There is marked restlessness, hypersensitiveness, headache and cervical rigidity.

The polyneuritic type comprises a group of cases in which the symptoms resemble those of a multiple neuritis. There is usually severe, sharp pain in the limbs, which with the respiratory or gastro-intestinal symptoms present, suggests a diagnosis of la grippe. Later when the neuritic features are dominant, a diagnosis of multiple neuritis is often made.

Abortive cases: In every large epidemic, cases are observed which manifest every symptom of the disease except the paralysis. These are so frequently reported and so authenticated, that we are forced to admit to our classification an abortive type. When we recall that not infrequently cases with well-developed paralysis completely recover, the existence of an abortive type seems plausible. It is readily apparent, however, that we can only include in this abortive type those closely associated with typical paralytic cases. Doubtless abortive cases do occur both sporadically and in the course of epidemics which cannot be directly associated with any cases of paralysis. With our present uncertainty as to early diagnosis, we would not be warranted in classifying these as poliomyelitis in the absence of such association.

PROGNOSIS

Many of the mild cases recover completely. Of the epidemic cases, complete recovery occurs in about 25 per cent (Starr). The mortality in epidemics is approximately 12 per cent.; in the sporadic cases, 6 per cent. Estimating the general average mortality at 9 per cent., there remains 66 per cent., or two-thirds of all cases with some permanent deformity.

Recovery begins within a few days to a week, and is often complete in three or four weeks. In the severe cases complete recovery is exceptional. Some slight improvement usually occurs to reward the solicitous observers, but there is often

ultimate atrophy in deltoids, pectorals, quadratus femoris and tibialis anticus muscles.

There are more fatalities where the epidemic has become well established than in its incipiency, thus verifying the experimental observations that the virus increases in virulence with its passage through successive cases.

Experience shows that a severe onset is likely to be followed by severe paralysis. An onset of moderate severity is usually followed by a moderate paralysis, with the tendency toward the severe rather than a slight form.

In the distribution of the paralysis, statistics show a marked preponderance of involvement of the legs over the arms. In view of the fact that the cases of mild or moderate severity run about until paralysis appears, it is interesting to speculate as to whether, if these mild cases were recognized and put to bed, this disproportion between the involvement of the arms and the legs would disappear.

DIAGNOSIS

Sporadic cases are not often recognized in the early stages. Some cases will show sufficient cerebral symptoms to attract attention to the nervous system.

The early manifestations are usually attributed to grippe, rheumatism or gastro-intestinal trouble. Later, in the severe cases, it is more likely to be confused with cerebrospinal meningitis. This is not strange when we recall that in severe cases some inflammation of the meninges is present.

If the possibility of this disease is kept in mind, the diagnosis will be made earlier. If the illness occurs in summer, or there have been cases of paralysis in the vicinity, the physician should be alert.

The occurrence of a change in disposition, fretfulness or apathy, fever, pain in the spine and limbs, with sweating, in a young child should arouse suspicion.

A blood-examination is of some diagnostic value. During the prodromal and acute stages there is a diminution of the white cells. With this leukopenia there is a relative increase of the lymphocytes from a normal 12 per cent. to 40 per cent.

The spinal fluid shows characteristic changes which appear early, even in the incubation period, and continue throughout the prodromal and acute stages. There is first a distinct increase in the amount of fluid present, with a marked increase of its cellular elements. These cells are mostly of the lymphocyte or early form of cells, with some of them undifferentiated. In the prodromal and early acute stages, there is present at times a fibrin clot. These cells and the clot rapidly disappear and there is frequently a return to practically a normal fluid by the end of the acute stage.

These changes in the cytology of the blood and spinal fluid are constant and distinctive, and, when we recall that early clinical diagnosis is usually difficult and often impossible, it is apparent that these offer the earliest as well as the most accurate means of securing a positive diagnosis.

TREATMENT

There have been radical differences of opinion among physicians as to the value of treatment in poliomyelitis. Some have asserted that after the paralysis has appeared the damage is done and that treatment is of no avail. They admit that improvement in the paralyzed limbs often occurs for a time, but insist that the improvement is independent of, and uninfluenced by, any treatment employed.

Other observers while admitting the organic nature of the lesions, argue that these are not necessarily irreparable, and that recovery is promoted by judicious and timely treatment.

Our knowledge of the anatomy of the cord and the pathology of the disease should serve us as a guide to treatment.

If the motor cells of the anterior horns receive their blood-supply from two lateral arteries with slight collateral circulation, it would seem that a lesion due to vascular obstruction need not necessarily be complete or permanent unless both arteries are involved. It would seem plausible that a given group of muscles rendered useless by impairment of nutrition of the motor cells of the nerves supplying them might regain a part of their function unless all the motor cells were totally destroyed.

Experience would suggest that under the stimulus of the new demand, the uninjured or less injured vessel might establish sufficient collateral circulation to enable the cells to reestablish and perform their function. Or assuming that a permanent blocking of one artery would mean a total destruction of a part of the motor cells in the area supplied, is it improbable that the remaining cells might respond to the loss by developing sufficiently to maintain or even to reestablish some innervation of the muscles?

Whatever our attitude on these theoretical questions, there is much that we can do empirically to render the patient more comfortable and improve his chances for recovery.

One of the first indications for the treatment of a child suspected of having poliomyelitis, is absolute rest in bed. Analgesics are indicated when pain and nervousness are severe. Aspirin or the salicylates are believed by some to have distinct value.

Lumbar puncture is not only a valuable aid to diagnosis, but where the nervous symptoms are prominent, such as severe pain, hyperesthesia, restlessness, delirium or stupor and muscular rigidity, distinct relief is often observed by the withdrawal of spinal fluid.

Since it has been demonstrated that certain antiseptics, notably hexamethylenamin, administered by mouth, are rapidly diffused into the spinal and other body fluids, it would seem to be indicated here. Skoog used the drug in a few cases and regards it favorably.

Recent experiments have shown that where hexamethylenamin has been given, the animal succumbs more slowly or not at all to the quantity of the virus that normally produces paralysis. This antiseptic action of the drug is of prophylactic value only and does not prevent development of the paralysis when administered after infection has occurred.

It has been demonstrated that the virus is easily destroyed or rendered non-virulent by contact with weak antiseptics, such as menthol, peroxid, etc., and that these simple antiseptic solutions sprayed into the nasopharynx are of value in preventing the transmission of the disease.

With the onset of paralysis, measures should be taken to protect the affected limbs from pressure or traction. Even the weight of the bedclothes or the force of gravity acting on the paralyzed muscle may aggravate the deformity. The limbs should be kept warm as their circulation is sluggish.

Beyond these simple precautions, treatment at this stage is of little avail, in fact, is contraindicated.

After the pain and hypersensitiveness have disappeared light, gentle massage and passive motion may be of value. Starr states that after the acute symptoms have subsided, full doses of strychnia are beneficial.

There are wide differences of opinion as to the value of electricity. Some think it will accomplish wonders and others brand its use as unscrupulous quackery. The truth is probably, as usual, somewhere between these extremes.

Some skilful and experienced observers think that the limbs do better if left alone for three or four weeks after the appearance of the paralysis. After this time has elapsed, electricity in proper form, say the galvanic current in the hands of men skilled in its use, is probably of value.

I shall not attempt to discuss the treatment of the resulting and permanent deformities. This belongs to the realm of orthopedics, a large and important subject in itself.

Much interesting and valuable work has been done recently in advancing the efficiency of corrective treatment by nerve, muscle and tendon surgery.

Most important for the general practitioner in this connection is the knowledge that most deformities, contractures, etc., can be prevented by intelligent treatment, early and persistently applied.

In the light of our present knowledge of the disease, the most effective treatment is isolation. Early, rigid quarantine will promptly limit its spread. It is the duty of every physician to promptly isolate suspected cases and notify the local health officers on the appearance of the disease.

We hope that there will soon be available an immunizing serum. In the meantime, we can do something toward protecting the little ones in our care by acquiring an intelligent knowledge of the disease, making early diagnosis and preventing the spread of the infection.

DISCUSSION

Dr. F. B. Wynn, Indianapolis: This subject has been brought to our attention particularly by the agitation regarding it carried on through various public health agencies — and very properly, of course, because our modern knowledge of this disease teaches us, as has been set forth by the essayist, that we are dealing with an infectious disorder. It belongs properly, therefore, in the group of children's diseases with diphtheria, scarlet fever, measles and the like. As called to your attention by the essayist, not only does the prevalence of epidemics indicate that it is infectious, but the laboratory experiments of Flexner have demonstrated to us conclusively that it is a communicable disease. We do not need, however, to take clinical observations to satisfy ourselves that it is certainly an infectious disease. It bears the pathologic ear-marks of an infectious disorder. There is marked round-cell infiltration about the vessels of the spinal cord, and to some extent of other nerve structures. It is essentially, then, a vascular disease in its pathology.

Another evidence of infectiousness is found in the fact of hemorrhage and thrombosis. We know that hemorrhage occurs in most of the infectious diseases; in small-pox and measles, when they are grave in character.

I feel frank to say that when it comes to recognition of the disorder in its early stages, it is most embarrassing to the physician. The disease during its period of infection might pass for almost anything. You might call it la grippe, or acute rheumatism, or acute bowel trouble. There are no definite ear-marks in the early stages. Of course when the paralysis comes then it is usually plain enough to be recognized, but not always so.

Very recently I was called to see a case supposed to be one of acute anterior poliomyelitis. I do not believe it was such a case. The little girl had had symptoms that might indicate this disease, but I found on careful examination that the onset of paralysis was not typical of the disease; it did not come suddenly; and yet the little girl maintained that she was not able to move the limb. It was a question of diagnosis. I recognized that the child was extremely nervous, and I also found that the parents had been reading the newspapers about poliomyelitis, and they were looking for it. They had talked about it in the family, and I felt sure that the little girl, through evil suggestive influence, had a type of hysterical palsy. And sure enough when I went to examine her I found that when her attention was diverted she did move the toes and foot, but when I asked her to do certain things with the limb she said she could not do it.

The problem is to recognize this disorder early. That is hard to do. I want to tell you that I do not know until the paralysis has come. I hope laboratory investigations will in the near future afford us some means whereby we may recognize this disease early. If there is an epidemic, of course we will be on the lookout. It is always well in any infectious disorder to pursue the plan of very thorough elimination, and so I say to such patients, drink water, flush the system, dilute the toxins, keep the bowels very free by frequent purgation — do any of those things that help to get rid of the toxins. That is old-fashioned practice, but in these cases I believe it is the best practice. Then isolate the patient, and take proper care of the secretions of the nose. In this disease, as in all others in which there is acute discharge of infectious material, we ought to be extremely careful in the care of the discharges of the nares, which are known to be highly infectious in character.

DR. F. O. DORSEY, Indianapolis: The subject of this fine paper we have just heard is of great interest and importance at the present time. This disease has always been to some extent rather obscure. In the past, going over the medical literature, about the first mention of it that is found is in the neighborhood of 1840. Coming on down there is more and more about the disease, but the pathology is obscure, though the conclusion at present is that, as Dr. Wynn has outlined, it is a general toxin with the greatest effort localized on the spinal cord.

It is of the utmost interest at the present time on account of the fact that the disease is apparently increasing. We have had more or less accounts of these cases since 1840, but in the last twenty years there has been a very rapid increase. In 1908, four states reported cases; in 1909, fourteen; in 1910, twenty-three. Now twenty-three states require that this disease be reported.

Also there has been a great deal of study of the symptomatology. You will find that the most recent text-books on anterior poliomyelitis vary considerably. There have been recognized new types of the disease, particularly the so-called abortive type, which does not develop paralysis at all. These reports are of the utmost importance, on account of the great increase in the disease, and all of us are constantly on the watch for it. One fortunate thing is that these epidemics do not occur twice in the same place. There has not been, so far as I know, any repetition of an epidemic. Statistics show that they do not repeat. Take New York's epidemic of 2,500 cases in one year, and the next year there were no more than the ordinary number.

In the study of these epidemics comes up the question of contagion. The disease undoubtedly is infectious; that has been shown by Flexner and many others by inoculation of monkeys. One monkey has been found which is not susceptible to the disease. But the disease undoubtedly is infectious, and I do not believe the question of contagion is as yet settled. On account of admission of cases to the New York hospitals there was created a furore among physicians. One physician took it on himself to write to each hospital in the United States as to their regulations as to infantile paralysis. He asked this question: "Have you ever had cases develop in the hospital?" He found more or less difference in the regulations as to isolation, but the answer as to whether cases ever developed in any hospital was uniformly "No."

Wickman is credited with having given the epidemic question more careful study than any other man. He claims to have traced this disease from house to house and village to village along lines of travel, and in this way accounts for 2,500 cases in the New York epidemic. The epidemic in Nebraska was traced in many cases from house to house, and in one threshing crew where some six or seven young boys had the disease. They were working together, drinking out of the same cups, etc. Occasionally there are numerous cases in one family. Pasteur reports a family of seven. But in the vast majority of cases you find but one in a family.

I think it worth while to consider that it is contagious absolutely, because we are still groping in the dark as to its etiology. And as long as we are groping in the dark it should be regarded as contagious. I think the laity should be instructed in this regard, that we should isolate our patients, and inform the people that

it is contagious — not absolutely, but that it is transferred from patient to patient in some way, but that way has not been discovered. A number of theories have been advanced as to the manner of transmission of this disease. If it is by contact, we must admit that a great number of children are not susceptible to the disease. But the same is true of scarlet fever or measles.

The essayist spoke of deformities. I want to make a plea for the prevention of deformities. I think the treatment of acute anterior poliomyelitis is more a question of prevention of deformities than anything that can be done at the time of the disease.

Dr. Albert E. Sterne, Indianapolis: The interest that has been manifested in this malady in recent years is naturally justified by the occurrence of the disease more frequently. But we have always had acute poliomyelitis with us. There is nothing new in its sporadic occurrence. I cannot recall — and I have been in medicine some twenty-five years — that there has ever been a single year — almost a single month — that the malady has not been presented to me. Of course we do not see the acute condition so often, but the sub-acute cases have always been with us.

As long ago as thirty years S———— called attention to this fact, that this malady was not a purely nervous disease, but that the inflammation of the smaller blood-vessels was primary to the degeneration of the cells in the gray matter of the horns. He himself at that time called the disease an infectious disease, but did not say it was contagious. He could not. While I believe it will spread by contact, we are not absolutely certain whether we are dealing with a contagious disease, an infectious disease, or a contagious-infectious disease.

I subscribe most heartily to what has been said in regard to the necessity of taking cases of this kind early and well in hand and watching them, and particularly to what Dr. Wynn said about watching every child, especially where the nose and throat are involved. But what I should like most to see is the profession awakened to the real danger of procrastination in the treatment of these conditions. Some years ago I wrote on this subject, and urged that the period of waiting be abandoned. We are dealing in the first place with an inflammation, deep-seated and hard to get at—but getable in some degree. We should treat this like any other deep-seated inflammation, and with means at our command such as ice and ice bags, why should we not use them? I certainly always do, and have had good results. I use a cold spinal bag constantly, and the ice cap, and above all things I do not wait when the paralysis has set in for a period of regeneration.

There is no reason because your central station is out of order to cut down your wires: there is no reason why, when your peripheral station is impaired, that your central wires should be cut down. If there is a fire at central station you should cut down your wires. The same is true of any part of that system. This is exactly what we have here — central lesions of infection with peripheral endings, and there is no reason why we should cut the wires of nerve fibers in good order.

We should prevent deformities, and we can. In these cases which we see early we can get splendid effects. We eliminate the amount of paralysis considerably and we do not get degeneration of the tissues, because we constantly throw ———— to the center. How that comes to pass I do not know, but the peripheral stimulation will to a great degree prevent the deformities that later arise. The law of growth of bone alone would teach us to keep the joints in order for use. I am not speaking of the later stages, because that is a matter that is absolutely individual. But in the cases where we find the malady at its incipiency there is no reason in the world why we should wait.

Dr. G. W. McCaskey, Fort Wayne: The pathology of this disease it seems to me is fairly well established. It is unquestionably, as the essayist has said, an infection, and there seems to be no doubt that it is due to ultramicroscopic organisms. If I remember correctly, Flexner has taken secretions from the upper nasal region and has produced a disease that immunes. The evidence goes to show very strongly that the virus does exist in the nasal secretions.

Now in regard to the title of the disease, some claim it should have been called anterior poliomyelitis instead of infantile paralysis, but I am inclined to think that we do not know enough about the disease to give it a name, but certainly anterior poliomyelitis describes the axis of the disease.

In regard to early diagnosis, nothing can be more important. I believe that we have reached a point where each individual case of acute infection, whether in child or adult, where poliomyelitis is suspected, should be studied as to the blood, the cerebral fluid, and by this means I believe we can get some diagnostic aid early. Some one spoke of relief by lumbar puncture in these cases, and of course it is important that relief be immediate. I have seen in other diseases most remarkable results from withdrawal of the cerebrospinal fluid. The lumbar puncture, in careful hands, is as safe as anything can be, and should be practiced more constantly than it has been.

This is not an infantile disease. That is one objection to the title. It is principally an infantile disease, but it may occur in substantially the same form in adults. I have seen several cases in adults which were undoubtedly due to the same infection. So if we are going to be punctilious about the name, we must not call it infantile paralysis.

Dr. H. R. Allen, Indianapolis: We have here a disease, as near as I can locate it, about 70 years old, hunting for a name, and hunting for a germ. It is also hunting for several other things. There are some states that have committees for investigation of the disease. Indiana does not have one. Indiana has committees for the investigation and prevention of venereal disease and various other kinds of disease, but no committee for the prevention of deformity.

The whole subject of infantile paralysis, aside from these few short acute hours, is what? It is orthopedic. Dr. Flexner came over to the orthopedic meeting at Baltimore with hundreds of photographs of his ————. But he like the rest is interested absolutely in the name of the disease. The name is lost, the beginning is lost, but the epidemic is a most important factor, and the permanent deformities which are preventable. Do not wait for trouble to grow out these deformities. You can do something for these cases in an orthopedic way, but it takes a great deal of trouble to work out something for some of these cases. It calls for a great deal of ingenuity.

But the whole thing we want to consider — the most important thing — is the necessity for some kind of a committee to be appointed for the prevention of deformities, since that is really the paramount issue in infantile paralysis, together with the prevention of epidemics. When the epidemic comes, let us be prepared for it.

Dr. R. L. Wade, Fremont: It fell to my lot in a recent epidemic to have ten cases under my care, and out of the ten cases three died. Two of the latter I wish to call to your attention. One was a young man 23 years old who came to me complaining of symptoms that you have all heard — pains in head and back and a tired feeling. He ran along this way for eight or ten days, and I thought it was typhoid fever. But one day in the latter part of the week — Friday I think — I was called over to see him, and he had a temperature of 102.5. He was sitting up and eating a little soup. I found that his bowels had not moved for three or four days, but he had been eating right along. I made an attempt to get the bowels open. I saw him again that night and again the next morning. He was complaining then of intense weakness. He could not stand, but was still sitting in the chair. I put him to bed. In fact he had to crawl on his hands and knees to get to bed. I saw him again Saturday morning, and he was troubled with dyspnea. On Saturday night his condition was worse; there was no action of the bowels. This went on, the dyspnea became more intense, and that night he died.

This was the first case that had occurred in the epidemic in the northern part of the state a year ago last July and August.

While I was attending that case I was called to see a young lady 21 years old. She was taken in much the same manner as this young man had been, only the bowels seemed to be the center of the disease. The case ran a great deal milder than the young man, but she was suddenly taken with dyspnea, and she simply went from bad to worse and died the next day.

Another case was that of a young lady about 28 years old. She was taken ill and was to all appearances as bad as either of the other two had been. She was completely paralyzed from her hips down; absolutely no action of the bowels or kidneys. The urine had to be drawn daily, the bowels were washed out with high enemas and she developed dyspnea at times. I gave her a half teaspoonful of ergot every two hours. Just when she was apparently at her worst the menstrual flow started and I believe that is what saved her life, because from that time she began to improve. To-day she goes around in a wheelchair. She cannot walk, but she can run a sewing machine.

The three cases that died, out of the ten, all died of dyspnea. They simply could not get their breath, and when a man cannot get his breath he is about all in.

Dr. F. F. Hutchins, Indianapolis: In the recent epidemics of poliomyelitis in Paris a careful study was made of the pathologic findings which corresponded closely with observations made in Vienna. While there may be clinical evidences of meningitis, and polyneuritis involvement of the brain as well as cord, the chief lesions are found in the anterior lumbar horns. The entire cord shows a proliferation of the perivascular sheaths resulting in layers of embryonic cells, becoming more dense toward the center of the anterior horn where the inflammation is greatest. The interstitial changes and the destruction of nerve cells apparently do not go together, sometimes one and sometimes the other being most marked. It is assumed that the initial and essential lesion is an alteration of the nervous parenchyma. The lesions do not correspond with the distribution of the blood-vessels, nor do they depend on vascular changes. The nerve cells disappear by histolysis or neuronophazy.

It has been noted that the serum in abortive cases has the same reaction against the virus as the serum in typical cases, and it is assumed that in these cases there is a specific immune body. Many experiments have been made by injecting the serum of recovered cases into cases before the onset of paralysis, with, as a rule I believe, good results.

Polio virus treated with 1.5 per cent. carbolic acid for five days is no longer infectious on injection, and 10 c.c. used subcutaneously in monkeys protects against a subsequent subdural infection. Immunized sheep serum will kill the virus in

test-tubes, but has no value in the protection from infection. It would seem that at present serum therapy is not very promising. Osgood and Lucas note that the nasal mucus from infected monkeys will produce poliomyelitis when emulsion of the brain and cord are not infectious, which may point to a source of contagion.

The affection of single muscles and not groups argues a nucleus in the cord for muscles and not groups of muscles, such as extensors and abductors. Examination of the spinal fluid shows fairly constant findings and should be made for investigative if not diagnostic purposes.

Poliomyelitis is evidently not a very infective disease, but the epidemics show that it is enough so that it should be a notifiable condition and the cases isolated.

Dr. J. L. Thompson: I would like to ask Dr. Wade for what purpose he gave ergot.

Dr. Wade: For the vascular effect — to get the blood to the surface of the body and away from the internal organs — to relieve the congestion.

A Member: I would like to ask if the vascular system of the cord is affected. Are there any lymph glands affected along that channel?

Dr. A. E. Sterne: I do not believe that can be answered properly. What lymph glands?

Member: Along the vascular system of the cord.

Dr. Sterne: I am sure I do not know. In a great many cases of acute infection the superficial lymph glands seem to be involved. I think we ought to be a litle bit careful about reporting conditions. I am not satisfied personally that the cases reported here were actually what we would call poliomyelitis. They occurred during an epidemic, and many aberrant forms occur during an epidemic which we do not see when they occur in sporadic form. I may be in error in this, but I am not satisfied that these cases were what we call poliomyelitis.

Dr. Wade: They all had paralysis.

Dr. G. W. McCaskey, Fort Wayne: I would like to ask the essayist if it is not a fact that Flexner and Lewis' experiments showed that the meninges were first involved? What was the first tissue involved? My impression was that it was the meninges first.

Dr. W. D. Hoskins, (closing): I have very much enjoyed the discussion, and I wish we might have time for more case reports.

I am not here to argue about the name, but we must call it something, and until we have the etiology settled let us call it either infantile paralysis or anterior poliomyelitis. In the first place, 90 per cent. of the cases occur in children. Is that not enough to justify the name "infantile paralysis?"

Reverting to these case reports, I think they were undoubtedly cases of the bulbar type of poliomyelitis, i. e., inflammation of the meninges of the cord which extended to the bulbar area and involved the nerves supplying the muscles of respiration. I would not question them at all — with due deference to Dr. Sterne's doubt — occurring as they did in an epidemic. If they had occurred isolated and alone, I would not argue they were poliomyelitis. We must not try to hold this disease down to too narrow a limit, but must open our minds to a wider comprehension of a variety of types, and group them under one classification, even though any one name may not be sufficiently comprehensive.

As to the findings of the French physicians, it occurs to me that if a child could live as long with its respiratory centers involved as it does when its lumbar centers are involved, we would find the same typical pathologic conditions present.

In answer to Dr. McCaskey's question as to primary involvement, the primary lesions are in the meninges of the upper cerebrospinal tract.

That the disease is transmitted by the nasal secretions, only emphasizes the plea for cleaning out the nasopharynx of the child. I think it is imperative in this infection that we learn anew the lesson that any sick child should be isolated, and if it be sick with any of these acute symptoms that may indicate an infectious disease, it should not only be isolated, but put to bed.

Dr. Sterne referred to cold treatment. That is all right for adults, but you know children do not tolerate cold applications as adults do. You must use discretion. It is very good treatment used at the right time in the right degree.

The doctor's plea for cerebrospinal drainage I think is admirable. You would not only relieve the acute symptoms, but relieve them promptly. The French physicians are urging that we give drainage there the same as in any other inflammatory process where there is infectious fluid pent up. They even claim that cases of tubercular meningitis, if thoroughly and persistently drained, may recover, and cite cases to prove it.

It is my observation that infantile paralysis is diagnosed rather more frequently when it is not present than overlooked when it is.

I am glad to see this awakening in regard to this subject. It certainly is important, as Dr. Allen has said, that we look after these cases early, before deformities are present. But we should not let the terrors of this disease stampede the profession. There are always those who lack clear vision, and who will not see a case of poliomyelitis for the next five or ten years; on the other hand, there are some who are so enthusiastic that they see poliomyelitis when it is not there. Let us not make a nightmare of it. It is all right to be alert and cautious, but let us not be stampeded.

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EDITORIALS

TREATMENT OF NOCTURNAL ENURESIS

In view of the fact that we find for the treatment of nocturnal enuresis in children such an array of remedies, mechanical, medicinal and otherwise, the conclusion would seem warranted that the condition was either due to one of many causes or that no remedy was particularly valuable in the treatment of the majority of cases.

One of the most interesting and comprehensive of the short articles on this subject appearing in recent literature is that by Ruhräh in the February number of the *American Journal of Medical Sciences*. The author well says that probably the reason for the common neglect, both by the profession and the laity, of this disorder, is because of its very frequency and its troublesomeness. One or two therapeutic ventures are made along with the suggestion that adenoids should be removed or if a male, circumcision performed, and these carried out and, failure resulting, the family becomes resigned to the inevitable. Excluding the cases of congenital origin, a group was formerly encountered and called essential or idiopathic enuresis. Latterly such cases are gradually diminishing and it has been aptly remarked that essential enuresis means essential ignorance.

As a matter of fact, enuresis is a symptom and has an underlying cause. Some of these children have imperfect or undeveloped spinal cords, the diagnosis of which is most difficult, the main test being that they resist all treatment and persist throughout life. Neurasthenia and epilepsy are awarded important places in the etiology by Frankl-Hochwart and Pfister. Irritability may account for small lesions causing the urine to be passed through reflex irritability.

Vulvitis and vaginitis in females and urethritis and balanitis in males are common reflex causes. A polypus in the rectum, a fissure or an ulcer or irritation from the oxyuris are also not infrequent causes. Stones in the bladder, polypi or tuberculosis are occasional factors; likewise hypertrophy of the bladder. The habit of much fluid intake or eating of salty or other thirst-causing food should be remembered. Mere laziness and sleep so sound as not to heed the warning of a distended bladder may be the inciting cause. Abnormal muscle tone and the weak motor inhibition of Merklen are offered in the etiology of the condition. Freund's hypothesis concerning the existence of hypertonia of the muscles of the leg and hypertonia of the bladder was not borne out by the study of Merklen of 164 children between the ages of 3 and 15 years. In fact, 69 per cent. of the enuretics showed motor weakness of the leg muscles.

The list of favorable statistics concerning the cure of enuresis by the removal of adenoids is a long one, the proportion of cures ranging all the way from 7.75 per cent. to 100 per cent. Perhaps the most interesting class of cases that has been discussed in recent literature is that brought out by Williams, who has contributed several articles on this condition. Such children suffer with subnormal temperature ranging from 96.2 to 97.2 degrees F., occasionally the temperature running even lower than this. They complain of being cold even though overclothed and of "dead" fingers. They feel cold even in summer and more so at night than during the day. They are undersized and underweight and about one-half the cases have adenoids, but with perfectly free nasal respiration. Combining the high-arched palate present in all these cases and the other things mentioned, Williams feels a diagnosis of thyroid insufficiency to be warranted.

One of the functions of the thyroid secretion being the fixation of calcium salts in the tissues, bone formation in these children must of necessity be defective and results in a failure of normal growth. Hertoghe speaks of certain cases of myxedema fruste in childhood, one of the symptoms of which is nocturnal enuresis. Lévi and de Rochschild speak of another sign of thyroid insufficiency called the eyebrow sign, consisting of the lessening in amount of the outer third of the eyebrow, and sometimes its complete absence. Although not at all pathognomonic of the condition, either in a positive or negative way, this sign is of advantage because of its ease of observation. Similarly to adenoids, the long prepuce has its enthusiastic enemies, and the number of reputed cures after circumcision varies in like degree to the removal of adenoids.

A very comprehensive table of the various causes of nocturnal enuresis is presented by the author.

Perhaps the most interesting of the newer lines of treatment are those of Williams, who publishes two series of cases treated by the use

of desiccated thyroid. He administered one-half grain of the dried thyroid twice daily to children between 2 and 6 years of age, increasing the amount somewhat for older children. The increase, however, should be made slowly, as directly opposite effects occasionally follow overdosage. Ruhräh has tried out this method in a small series of cases which were not picked ones, as he seems to think were Williams'. In those cases in which he felt that the symptoms pointed unmistakably to thyroid insufficiency he obtained quite remarkable results, and in his experience the effect was obtained promptly or not at all. In every instance in which a favorable result was obtained, such effect was noticed after the administration of one or two doses, and in all cases within a week. Furthermore, along with the favorable influence on the enuresis the children of Williams' series who were undersized gained in weight rapidly. He speaks of one patient that gained 5 pounds in a week. Ruhräh finds that it is not necessary to continue the thyroid over long periods of time. This etiologic factor is new in pediatric literature and seems to point toward a more rational therapy than has been offered for this troublesome condition in previous years.

Voisin claims to have obtained a very favorable result by hypnotism in a boy aged between 13 and 14 years who was in the habit of passing the urine either with or without dreaming of the act. Voisin was able to put the boy into hypnotic sleep and on the suggestion that he would not dream any more obtained a disappearance of the incontinence for six days. Under the same process relief was obtained for three days. A bimanual injection of artificial serum was then made on three different occasions and hypnotism employed once a week for a month. The patient has been entirely well for over a year. Culler is very enthusiastic over the hypnotic treatment.

A most ingenious and yet simple device has been reported by Genouville which he has used with considerable success in certain cases. It seems to act as an inaudible suggestion. He places in the bed of the child, under the region of the pelvis, two metal placques, separated by a piece of flannel or a piece of absorbent cotton. These two metal placques are connected with wires, each to one pole of a battery and a bell, and when the infant urinates the cotton becomes wet, completes a circuit and causes the bell to ring. The infant is awakened and the micturition stopped, and after being wakened thus several times the patient is frequently cured. Although tried in a comparatively few cases only by the inventor, the remarkable thing in connection with it is that most of the cases that were cured had a very prompt result.

The injection of salt solution by various routes, either directly into the spinal canal, by means of lumbar puncture, subcutaneously in the sacral region, retrorectally or into the perineum has its advocates. It is doubtful whether injections into the spinal canal when successful owe their result to influence on the cauda equina or to the psychic influence of the injection.

Of the older methods of treating the disease, one of the first things to be mentioned is restriction of the diet to a simple non-irritating one and the amount of fluid taken, particularly after 4 or 5 in the afternoon. Raising the foot of the bed so as to avoid the irritating effect of the first urine on the neck of the bladder is a rational procedure. A maximum of rest and a quiet life are essential. One of the most useful remedies in the absence of any other indication for treatment Ruhräh finds to be a solution of atropin of such strength that each drop represents approximately 0.001 gr. Although ordinarily as many drops will be required at a dose as a child is years old, yet a better test of dosage is to increase from the initial dose of 1 to 2 drops, a drop at a time until flushing of the face and neck occurs some twenty minutes after the administration of the drug. The dose is then diminished 1 drop and such amount continued until the child has been completely relieved for at least two weeks, when the drug is left off gradually.

ANTITOXIN ANAPHYLAXIS

Within the past few years many of the problems of immunity have ceased to become mere theoretical considerations and have assumed a decidedly practical aspect, familiarity with which has developed into a real necessity for the intelligent clinician. And in order to avail ourselves of the advantages of immunity or antianaphylaxis, we must not lose sight of the very deleterious effects occasionally encountered through the opposite process; viz., anaphylaxis.

For some considerable time it has been quite the fashion in certain quarters to administer diphtheria antitoxin in immunizing doses to the relatives of a patient suffering with the disease. From our present knowledge of the anaphylactic process we know that we could, with reasonable safety, administer a therapeutic dose, if necessary, to this previously inoculated individual any time within the first seven or ten days. But beyond that time there arises a very grave danger

of inducing serum sickness, with a possible fatal termination, which must not be neglected.

Furthermore, it is well known that the immunity offered by this prophylactic injection of diphtheria antitoxin is comparatively short-lived, a question of but a few weeks. Now suppose this previously immunized individual, even though he may have been fortunate enough to have escaped infection through exposure to the first case, suffers an attack himself later through exposure by way of an entirely different source; after an interval of, say, several months, it then becomes a grave question as to whether or not we dare administer antitoxin therapeutically at this time. That such an hypothesis is not merely theoretical is proved by a report of just such a case by Grinnan, of Richmond, Va.[1] He gave a 3-year-old-child an immunizing dose of antitoxin, only to be called to treat the little one eight months later for a nasal diphtheria. Little reaction had followed the prophylactic dose, but on receiving the antitoxin for its own diphtheria the child became immediately and seriously ill; the respiration was so rapid as to arouse a suspicion of pneumonia and quite a large area of the back surrounding the point of injection became very edematous and very dark. After three days of grave illness the symptoms began to subside, then disappeared rapidly.

Inasmuch as Donaldson reports that 80 per cent. of all serious accidents in the use of serum occur in those who have been previously inoculated it would appear that anaphylaxis was usually an acquired phenomenon; but it is also well known that the mother guinea-pig transmits the susceptibility to the toxic action of horse-serum to her offspring. That such congenital origin may likewise occur in man is indicated by a second case reported by Grinnan. He gave an immunizing dose of antitoxin to a lady who wished to nurse her daughter. Sudden illness and swelling all over the body supervened, along with the development of an urticarial rash. Stiffness of the joints and severe illness of a month's duration followed, the joint stiffness remaining for a full year.

That the toxic property lies in the serum and not the antitoxin, as was at first thought, is proved by the fact that the same results have been produced by other proteins, such as egg-serum, donkey-serum, sheep-serum, rabbit-serum and eel-serum and certain vegetable proteins. The toxicity of eclamptic mothers' milk and the sensitivity of certain atrophic children toward cow's milk are thought by Goodal, Pisek and Pease[2] to be examples of anaphylaxis.

It has for some time been known that asthmatic patients are particularly susceptible to the anaphylactic action of foreign serums and with the idea of testing the susceptibility of such patients Callé recommends a scratch test, rubbing into the scratch a minute quantity of the serum to be used. Should a severe local or systemic reaction follow, therapeutic doses would, of course, be contra-indicated.

For the reduction of the shock of anaphylaxis a number of agents have been recommended, including atropin, chloral hydrate, epinephrin and artificial respiration.

Wolff-Eisner[3] has suggested the elimination of anaphylaxis by using serum from another species of animal, and Bokay[4] thinks it would be wise if, in the future, diphtheria antitoxin were prepared not only from the horse, but from other animals, as the sheep, cow and ass. The latter observer reports the interesting coincidence of two children of different families, with first serum injections of the same quantity of serum prepared at the same time from the same horse and both developing, within a few minutes after the injection, a severe urticarial eruption covering the face and scattered over the entire body, the rash fading within a day. Bokay is inclined to ascribe the serum sickness in these two cases to some individual element of the horse from which the serum was derived. In his observation, in the month of January, 1911, out of twenty-three cases 50 per cent. developed a serum exanthem.

At the recent meeting of the American Physiological Society Auer reported some interesting experiments concerning this subject. Investigating with rabbits, he found the early symptoms characterized by marked respiratory slowing, tonic and clonic convulsions, the heart continuing to beat some minutes after cessation of respiration and convulsion. Post mortem the gut was pale, without hemorrhage, the splanchnics full. Though collapsed, the lungs showed traces of pulmonary edema. A characteristic feature was the distention of the right ventricle with blood, without muscle response to mechanical or electrical stimulation, although the auricles were usually found beating. By excluding the central nervous system and that of the splanchnic region, he found that the blood-pressure fell as readily as in intact animals. Hence he believes the primary, underlying cause of anaphylactic death in rabbits

1. Jour. Am. Med. Assn., January 20, p. 178.

2. Pediatrics, September, 1911.
3. Progressive Med., December, 1911, p. 310.
4. Ibid.

to lie in the heart itself. For this reason it is considered wise to combine with atropin an intramuscular or intravenous injection of digitalis, although both these drugs may at times fail.

In view of these results it becomes a debatable question whether in the presence of a diphtheria in a family it is preferable to employ the prophylactic injections, or to rely on strict isolation and await results, watching for initial symptoms and administering the antitoxin, immediately the diagnosis is made.

SIMPLE METHOD OF ROTATING OCCIPITO-POSTERIOR VERTEX

Among the various nightmares of obstetricians perhaps none is more universally the cause of uneasiness to the experienced obstetrician than the persisting occipito-posterior vertex position. Considering the fact that approximately 30 per cent. of vertex presentations are right occipito-posterior ones of which from 1.5 to 3 per cent. fail to rotate anteriorly, it is incumbent on all careful obstetricians to be on guard for this complication in pregnancy.

Furthermore, besides the fact that perineal ruptures of the severest type much more commonly follow deliveries in this position, the fetal mortality is likewise raised to the high rate of 10 per cent.

In the treatment of this condition, the first essential is, of course, an accurate diagnosis of position as early in labor as possible. The contour of the pelvis with the rectum lying in the left posterior quadrant naturally makes the right occipito-posterior position much more common than the left. In the event of such position being present, the fetal heart tone will be heard in the right flank of the mother, below a transverse line through the umbilicus, the back of the child likewise in the mother's right flank.

As to methods of handling this complication, there seems little unanimity of opinion among obstetric text-book writers. One advises applying forceps and delivering in the posterior position, the result of which would probably be a complete laceration of the perineum; another suggests podalic version wherein chances arise of seriously injuring the mother or killing the child in the delivery of the after-coming head; a third says to apply forceps, and with the possible considerable traumatism to both mother and child, rotate the head to a more favorable position and await natural delivery or reapply the instrument and deliver. A fourth suggests some method of manual rotation, usually meaning pushing of the head up and out of the pelvic cavity, thus considerably disturbing the flexion present. Of these methods one writer declares the use of the forceps as a rotator to be the easiest and surest method of handling such cases, while others forbid the use of forceps for this purpose at all. Podalic version in the absence of firm fixation is both advised and condemned.

What would seem to be a decidedly practical and easy method of overcoming this unfortunate complication is the method described some ten years ago by Dr. William D. Porter of Cincinnati, and on the results of which he reported success in more than fifty cases at the Atlantic City meeting of the A. M. A. four years ago. Latterly Arnold[1] has discussed the Porter method with slight modification and reported entirely satisfactory results in some thirty or more cases in his own hands. Indeed, he says that so satisfactory have his results been with the method that he now has come to look on a case of persistent occipito-posterior position with no more fear as to its successful termination than he would have in an ordinary forceps delivery, and in fact expresses enjoyment at the opportunity to attend such a case because of the promptness and ease with which he feels he can terminate it.

In describing the procedure, he assumes that the cervix is fully dilated, that the patient has been fully anesthetized and placed in the proper position for forceps application, the diagnosis of occipito-posterior position being verified if necessary by touching the child's ear. Assuming, as is by far more commonly the case, the position to have been originally a right occipitoposterior one, the obstetrician, sitting or standing directly in front of the patient, rotates his left hand sharply outward until the ulnar edge is pointing upward and the thumb downward and toward the mother's right. In this attitude the hand is inserted in the vagina with the palmar surface of the fingers applied to the right side of the occiput. If the head be high, it will be necessary to insert the whole hand; if low only the half hand need be introduced. No attempt is made to grasp or hold the head with this left hand, for such an attempt might force the head out of the pelvis or disturb the normal attitude of flexion. There being plenty of room in the left side of the pelvis to insert the inverted hand against the right side of the child's head, there is likewise room for the rotation of the face. Placing the left hand as indicated, the fingers of the right hand are

1. Medical Council, April, 1911, and June, 1911.

pressed firmly on the abdominal wall above the pelvis until they come in contact with the left frontal region of the child's head. Thus placed, the two hands hold the head firmly in their grasp, rotation being accomplished by the combined action of the two hands, the internal hand, as it attempts to untwist, making the pressure directly against the occiput and crowding it firmly against the right side of the pelvis, the external hand directing pressure downward and to the left on the left fronto-temporal region of the child's head.

Dr. Arnold's experience corroborates the statements of Dr. Porter to the effect that although the two hands thus acting are capable of exerting a tremendous rotating power, yet such rotation is usually surprisingly easy. He has likewise found that the depth of the head in the pelvis and the firmness with which it is sometimes impacted there are no contra-indications for the use of the method, notwithstanding a prevalent idea to the contrary among those who have not tried it. A pelvis that will permit the head to engage, descend and rotate until the occiput rests in the hollow of the sacrum will invariably permit of this bimanual method of restoring the occiput to its normal position; furthermore, his experience has demonstrated that the lower the head in the pelvis the easier the rotation, paradoxical as it may seem.

Most of Arnold's cases have been seen in consultation with other physicians, have undergone prolonged labor, and not infrequently one or more fruitless efforts at forceps delivery have been attempted. Success has attended every one so far. Having succeeded in rotation of the head, and this can very often be accomplished in less than half a minute, the next step is to prevent return to faulty position, which it has a great tendency to do when let alone. At this stage Dr. Arnold slightly modifies the Porter method. With the hands in contact with the head the new position is readily maintained, but in order to apply forceps, which is undoubtedly wiser in practically all cases, the obstetrician must needs remove his hands and rely on the nurse or an assistant to keep the head in place. In order to do this, Dr. Arnold directs the assistant, who is usually the etherizer, to make manipulations through the abdominal wall, with a view to swinging the body of the child from the mother's right side toward the left, coincidently with the rotation of the head, which manipulation not only greatly facilitates the latter process but prevents twisting of the child's neck, the chief cause of the tendency of the head to return to faulty position. Such manipulation proves effective in controlling the head during the brief interval between the removal of the obstetrician's internal hand and the application of the first blade of the forceps.

Such modification has proved most helpful in many cases, especially where the head is yet high in the pelvis, rotation having been quickly and satisfactorily accomplished, the application of the forceps rendered easy so that the further conduct of the case may proceed with due time and deliberation.

Since his original report Dr. Arnold has made a later one[2] giving the results of subsequent cases with equally satisfactory results, and clearing up some of the doubtful points that seem to have emanated from the original article.

Because of its simplicity and expediency of application it would seem that this method were worthy of trial in practically every case of occipito-posterior position, and particularly those undergoing delivery in the hospital, a thing which certainly facilitates the elimination both of maternal morbidity and fetal niortality in such cases.

OBJECTIONABLE TRADE-NAMES

While it is true that a rose by any other name would smell just as sweet, it is also true that many a despised weed would attract the interest and admiration of the public were it placed in a hothouse and given a strange and unintelligible name. Similarly, although it is universally recognized that morphin or acetanilid under any other name are just as valuable and just as dangerous, yet the thoughtless physicians can be humbugged to believe that when contained in mixtures with such names as Papine or Pantopon morphin is devoid of its narcotic effects or its habit-forming tendency and that acetanilid in mixtures and called Phenalgin, Ammonol or Antikamnia is free from the untoward effects of the drug.

That physicians prescribe such mixtures without regard to their composition is illustrated by the continued use of the acetanilid mixture "Phenalgin" (*Jour. A. M. A.*, Jan. 27, 1912, p. 293). Although a report of the Council on Pharmacy and Chemistry informed the profession nearly six years ago that it consists of acetanilid 57 parts, sodium bicarbonate 29 parts and ammonium carbonate 10 parts, and, although the Food and Drugs Act now requires a declaration of the acetanilid content on the label, the mixture is sold under claims which everyone, if

2. Loc. cit.

he bears in mind the acetanilid content, must know to be vicious and dangerous falsehoods. And yet, as *The Journal* sarcastically remarks, a "large proportion of a presumably scientific profession 'fall for it' and a multitude of medical editors stand sponsor for it!"

The application of misleading or meaningless names to mixtures of well-known drugs is a serious evil. It is responsible for the existence, to the detriment of therapeutics, of a vast number of proprietary preparations sold under false claims which none would believe if the name gave a clue to the composition. While the federal Food and Drugs Act requires the declaration on the label of medicines of narcotic constituents it does not require other potent ingredients to be declared. In this respect the law is insufficient. In so far as proprietary medicines are concerned it also fails to protect because physicians do not consult the labels on proprietary remedies before prescribing them. On the other hand, the Council on Pharmacy and Chemistry will not recognize a pharmaceutical mixture unless its name indicates the potent medicinal constituents, and physicians who confine their use of proprietaries to those recognized by the Council will avoid the dangers of such disguised mixtures of potent drugs as are presented by Phenalgin, Papine and Pantopon.

EDITORIAL NOTES

Association dues became delinquent February 1.

If a cold winter has anything to do with promoting health, as some seem to think, then doctors ought to find time hanging heavily on their hands this season.

Each year shows a decided improvement in the promptness with which members of the Indiana State Medical Association pay their annual dues. In this number we publish an additional list of those who have paid dues during January, and while there are many delinquents who should have renewed their membership before February 1, yet the number is smaller than ever before. Secretary Combs predicts that the membership for this year will go over 3,000, and with the earnest work of councilors and officers of county societies, the prediction should hold good.

Several county medical societies in Indiana get out monthly bulletins which not only publish the scientific programs for the month but many news notes and items of interest to the local profession. We wish that all county societies might publish a monthly instead of a yearly program, and for the larger societies that meet weekly and issue weekly notices, the monthly bulletin might be a great saving in time and money.

The Council of the Indiana State Medical Association, at its mid-winter session, passed resolutions endorsing the good work of the Council on Pharmacy and Chemistry of the A. M. A., and urges members of the Indiana State Medical Association to use only pharmaceutical specialties that have been approved by the Council on Pharmacy and Chemistry of the A. M. A. and listed in the reports of the Council as contained in the book known as New and Nonofficial Remedies. Another resolution was adopted condemning the practice of certain medical journals in accepting the advertising of nostrums and worthless proprietary remedies.

The Council might have gone a step further and asked the members of the Indiana State Medical Association not to support journals carrying objectionable medical advertising. There is absolutely no reason why the medical profession should support journals which profit by carrying on a species of deception and dishonesty in their advertising pages.

With this number we start off with a new mailing list, and before the close of the month we expect to receive a large number of letters from doctors who are not receiving The Journal because they have neglected to pay their dues and subscriptions for the year 1912. It is strange how many physicians are careless about fulfilling obligations promptly. To the average physician it is just as easy to pay dues one time as another, and when county secretaries make a special effort to get in dues between December 1 and February 1, there is no reasonable excuse for any physician becoming delinquent. When the delinquents do pay up they usually register a complaint because they have not received all of the benefits that come from membership, and they never take into consideration the fact that through their own carelessness they have caused themselves and everyone connected with the administration of the Association's affairs a great deal of inconvenience and trouble, and that in order to get back to the old routine it requires a cer-

tain amount of time and formality for which due allowance should be made.

Notice to the Members of the Indiana State Medical Association Who Desire to Contribute Papers for the 1912 Session.—The Committee on Scientific Work of the Indiana State Medical Association wishes herewith to announce that members desiring to read papers before the Indianapolis session should submit titles to the secretary of the committee, not later than May 1. The essayists are urged, wherever possible, to bring illustrative cases for use in clinical demonstration, accompanying the reading of the paper.

While the presentation of clinical cases is greatly to be desired, it should be borne in mind by each essayist that, owing to the short two-day session, not more than twenty minutes can be allotted for both the reading of the paper and the clinical presentation. In order to avoid confusion it is necessary to require that clinical cases may not be presented without an accompanying written paper, which paper is to be filed with the secretary.

Joseph Rilus Eastman,
A. C. Kimberlin,
Charles N. Combs, Secretary,
Committee.

A few of the more prominent manufacturing chemists are standardizing their products, with the result that physicians who prescribe such preparations can be absolutely sure of a definite chemical and physiologic strength. This standardization work requires time, labor and skill which is not bestowed on similar preparations made by the average manufacturing chemists who charge nearly as much for their products as do those who practice standardization. The medical profession should appreciate this work because in no other way can the same results be secured in uniform and reliable products and dependable therapeutic efficiency. While we are very justly criticizing the manufacturers of cheap drugs and worthless pharmaceutical specialties, who are in the business for all they can get out of it and have no regard for their moral obligations, we believe we are justified not only in commending those manufacturing chemists who are at great trouble and expense trying to raise the standard of pharmaceutical excellence, but also in urging that such manufacturers be given preference by all those who prescribe any products turned out by manufacturing chemists. Our readers will note that some of our advertisers are calling special attention to their methods of standardization of drugs and chemicals, and from the fact that this work has received the approval of the Council on Pharmacy and Chemistry of the A. M. A., and is most desirable for the benefit of the medical profession, we speak a good word for them.

We feel justified in calling the attention of our readers to the efforts on the part of the more prominent pharmaceutical manufacturers to raise the standard of pharmacy and chemistry by improving the quality of preparations manufactured and complying more strictly to truth and accuracy in the representations made to physicians and others who use their products. While it is unquestionably true that some reputable and competent manufacturers with perfectly good intentions have been found guilty of error in representations concerning their products, the vast majority of manufacturers have been either intentionally dishonest or woefully ignorant, and we have only condemnation for either the ignoramus or the knave when it comes to the manufacture and sale of medicinal preparations for use directly or indirectly in the treatment and care of the sick.

But for the work of the Council on Pharmacy and Chemistry of the A. M. A., the medical profession would still be groping in the dark, for the reports of the Council and of the Association's chemical laboratory demonstrate amply that entire dependence cannot be placed on manufacturing pharmacists. At first there was a good deal of criticism of the Council's work on the part of those who were apparently injured by the revelations, but gradually the more important manufacturers have recognized the value of having a check on their work, and the seal of approval of an unbiased board of competent men on whose judgment the medical profession implicitly relies. The Council has served a triple purpose in being beneficial to the manufacturers, to the medical profession and to the public. We earnestly urge our readers to follow the work of the Council and to be guided by its findings.

In a letter from an intelligent member of the laity in Elkhart, the suggestion is made that it would be a good thing if the better class of physicians would put forth some extra effort to lift up the delinquents in the profession; and in connection with this statement a curious experience with some of the doctors in Elkhart is related.

We quote as follows: "Before coming to Indiana I was very much interested in sociologic work which brought me in direct contact with a great deal of sickness. I have been in Elkhart going on two years, and I am appalled at the ignorance of the people concerning tuberculosis. I recently saw a case of tuberculosis, and I am ashamed to say that the two or three doctors that I consulted concerning the case did not know of our state institution at Rockville. I have come in contact with some six cases of tuberculosis since last spring, and these cases have been treated in ways that should make a twentieth century physician blush. I have recently seen a case of pneumonia being treated by one of our physicians, who has forbidden the windows to be raised, and says that this fresh air talk is all bosh."

The letter concludes with a reference to the public exhibits and lectures on health matters that are common in various states, and offers the suggestion that Elkhart would be a good field for missionary work in promoting public health information.

We are disposed to say to our correspondent that there are delinquents in all professions and in all lines, but that he will find among the medical practitioners of Elkhart a large number of good men, and far more than enough to save the profession from destruction. However, it is very evident that while we are making strenuous efforts to educate the public concerning health matters, it would not be a bad plan to try to educate some of the "half baked" doctors whom an all too lenient medical law and a more lenient interpretation of which have permitted to experiment on a credulous public. The public has a right to know who are and who are not competent to practice medicine, and as a license means nothing it might be well for medical organizations to take a hand in the matter of endorsement of those who are qualified. No man can attend a good live medical society regularly without learning something, and if the public knows who does and who does not affiliate and take part in the work of a live medical society, the problem of selecting a reasonably competent physician becomes one of easy solution.

In the January number of The Journal we called attention to the fact that *The Journal of the Michigan State Medical Society* in the past has failed to have very clean advertising pages, and that its editor has not given the Council on Pharmacy and Chemistry of the A. M. A. very active support in the work of pharmaceutical reform. In the February number of *The Journal of the Michigan State Medical Society* we find a report of a recent meeting of the Council of the Michigan State Medical Society in which is reported the action of the Council in directing the editor of their journal to clean up the advertising pages, and to accept no new advertising contracts that do not conform to the recommendations of the Council on Pharmacy and Chemistry of the A. M. A. In the same number is an editorial in which the statement is made that henceforth *The Journal of the Michigan State Medical Society* will have advertising pages which shall be above criticism, and that the editorial policy will be to support everything which pertains to medical progress.

This certainly is a step in the right direction, and we take great pleasure in congratulating the Michigan State Medical Society on its stand. It is idle talk for us to say that we can make any real progress as long as the journals that are owned and controlled by medical societies are guilty of apathy in the work of reform in our ethical standards and give tacit support to deception through the acceptance of the advertising of nostrums and worthless proprietary remedies. Reforms always begin at home, and we cannot expect to advance very far in our propaganda for reform until we clean house in the medical profession.

One of the most efficient means of promoting the good work that has been done by the Council on Pharmacy and Chemistry of the A. M. A. is for the medical journals to support that work, not only in an editorial way, but in a business way as well by having clean advertising pages. The so-called state journals, owned by the profession, should be the first to enlist in the good cause, and we are very much pleased to know that such a large and influential state medical organization as the Michigan State Medical Society has decided to join the ranks of the progressives. We hope that the medical societies of Minnesota and Nebraska and some other states will purify the advertising pages of their journals and help us to create a better condition of things by upholding and supporting the great work that is being done by the American Medical Association through its Council on Pharmacy and Chemistry.

We have received a few letters from county medical society secretaries asking us why we have not reported the meetings of their respective societies, and on informing such secretaries that we invariably publish either in full or in abstract any and all society reports that come to The

Journal office, we learn that some secretaries count the printed program sent out in advance as being a report of meetings sufficiently accurate and trustworthy to be used in publishing the proceedings of the society.

That none of our readers may have any mistaken notions concerning this subject, we desire to say that we do not make up from advance programs a report of any meetings except it be to announce such meetings. The department devoted to society proceedings reports all meetings actually held. Were we to make up reports from the programs, as some secretaries seem to think we ought to do, it would frequently happen that we would print the proceedings of some meetings that were never held.

In this connection we might refer to an incident that occurred during the last session of our Association. Ex-Vice-President Fairbanks was on the program for a speech following the banquet, and an advance copy of his speech was, on request, given the newspapers and to the editor of The Journal. At least one of the Indianapolis papers had the speech in type before the time for the banquet and expected to use it in the report to be published on the following day. We had also intended to publish the speech in full in The Journal, inasmuch as Mr. Fairbanks had carefully prepared a very convincing argument covering the propriety of giving the medical profession public support and justifying the creation of a department of public health. Whether it was due to the character of the addresses by Governor Marshall and others who preceded him, or whether it was due to some influence created by the audience, is an unsettled question, but suffice it to say that Mr. Fairbanks did not deliver his prepared speech, but gave an extemporaneous address quite different from the one that had been prepared. Quite naturally the newspapers did not publish the address that had been put in type previously, and the copy which we had prized was also worthless as applying to the report of the banquet.

There is an old saying that one must not count the chickens before they are hatched, and we respectfully request the county society secretaries not to ask us to write up reports of meetings of their respective societies from data furnished by the printed program. Furthermore, the county society secretaries should furnish the written report rather than expect someone else to do it for them.

The Honor Roll.—Since January 1 the membership of the Indiana State Medical Association has had added to it nearly 300 names of doctors who were not members last year. This increase of new members has been due to the efforts of nineteen county medical society secretaries who have reported more members in their respective societies than were reported during the year 1911. This honor roll is as follows:

Dr. C. C. Rayl, Secretary Adams County Medical Society.

Dr. W. R. Quick, Secretary Carroll County Medical Society.

Dr. Harry Elliott, Secretary Clay County Medical Society.

Dr. G. B. Hammond, Secretary Crawford County Medical Society.

Dr. C. R. Ramsbrok, Secretary Dubois County Medical Society.

Dr. C. G. Beckett, Secretary Fountain-Warren County Medical Society.

Dr. V. V. Cameron, Secretary Grant County Medical Society.

Dr. E. M. Shenk, Secretary Howard County Medical Society.

Dr. R. Q. Taviner, Secretary Huntington County Medical Society.

Dr. M. D. Gwin, Secretary Jasper County Medical Society.

Dr. C. C. Rozelle, Secretary LaGrange County Medical Society.

Dr. E. M. Shanklin, Secretary Lake County Medical Society.

Dr. W. H. Muelchi, Secretary Perry County Medical Society.

Dr. E. S. Imel, Secretary Pike County Medical Society.

Dr. C. L. Botkin, Secretary Randolph County Medical Society.

Dr. J. B. Maple, Secretary Sullivan County Medical Society.

Dr. S. A. Shoemaker, Secretary Wells County Medical Society.

Dr. Alice B. Williams, Secretary Whitley County Medical Society.

Dr. Earl Van Reed, Secretary Tippecanoe County Medical Society.

If nineteen county medical societies have increased their membership for 1912, it is possible for the secretaries of all the other county medical societies in the state to report an increase of membership in their respective societies, and it is not too much for us to expect a total membership for the year of over 3,000. At present there are several hundred physicians who were members last year who have failed to pay dues for 1912 and are now delinquent and not members in good standing of the Association. Delinquent members are also deprived of membership in the A. M. A. County medical society secretaries

should call attention to the fact that on February 1 all those who have not paid dues have forfeited the rights and benefits of the state and national associations until such time as dues are paid.

The Honor Roll of Secretaries as published above will be republished again, and it is hoped that there will be other secretaries whose names can be added to the list because of results secured in adding to the membership of their respective societies. Charles N. Combs, Secretary.

The establishment, at the request of the Society for the Suppression of Unnecessary Noise, of zones of quiet around the hospitals in the city of New York, has proved so beneficial that hospital zones have been since instituted by municipalities throughout the United States. Mrs. Isaac L. Rice, the founder and president of the society, makes a strong appeal in the December *Forum* for the establishment of similar zones around the public schools, concerning which she says: "There is a most important feature of school sanitation which, up to the present, has not been recognized, namely, the urgent need of protecting the young from the injurious effect of outside noise, which, by rendering concentration difficult, increases the mental effort required for school tasks, and, by preventing free ventilation, menaces the physical well-being of the child. This is a matter so grave and so far-reaching in its consequences that its utter neglect is little short of incredible."

The urgency of action in this matter presented itself to Mrs. Rice on the occasion of her visiting many schools and addressing thousands of boys and girls in the course of her campaign for a "safe and sanitary Fourth of July." She "was astonished to discover the amount of preventable noise which penetrated the class-rooms, and the absolute foulness of the air which sickened those entering from without," the latter being due to the fact that in most cases the windows were tightly closed. The sources of the disturbances included cobble-stone and other rough pavements, the proximity of garages, car barns, factories, junk-shops, the cries of street hawkers and venders, the shouts of children and hoodlums, besides the unavoidable noises of traffic.

With the view of ascertaining the sentiment of principals and teachers on the subject, letters were sent to the principals of all the schools in the five boroughs of New York, representing about 14,000 teachers, asking for an expression of opinion with regard thereto. The responses received were overwhelming, many of them expressing "touchingly the distress endured and also the hope that relief might be vouchsafed." One teacher wrote: "The nervous tension under which we labor is materially increased by the numerous unnecessary noises which hinder us so seriously in our work. Sometimes these have been so great that we have been compelled to resort to the expedient of writing our directions on the blackboards." Another said: "I am most of the time under a physician's care, the condition of my ears being due to ear-strain alone." In one school it was reported that "four teachers were spending most of their salary for ear and throat treatment," while vocal paralysis was complained of in another. It was estimated in another case that "the noise robs class and teachers of 25 per cent. of their time."

As to the necessary course of procedure in any organized effort to improve school conditions, Mrs. Rice writes:

"Taking up first the consideration of those buildings already erected, the most obvious step would probably be the removal of all rough pavements and the substitution of a sound-deadening material, wood perhaps in preference to all others on account of its noiselessness. The next would perhaps be the diversion of traffic, when practicable, between the hours of 8:30 and 3:30. This would mean much more than the mere avoidance of noise, for it would permit the children to enter and to leave school, and even to play in front of the building at noon, without the danger of accidents. . . . The third would probably be the bringing to bear of pressure on the car-line companies in order to force them to keep their equipment in order. . . . Loose track-joints should be made good, curves should be kept greased, and the starting of a car from the barn with a pounding flat wheel should be made a finable offense. Fourth, the passage of an ordinance creating school zones, *and its enforcement*, would do away with rapid driving, the cries of hucksters, the blowing of auto horns, and all those other noises which are due largely to ignorance of the presence of a school building, and which could be stopped by the erection of warning signs stating that needless racket would be punished. As regards protective ordinances, two, concerning the distance at which street musicians and hucksters must remain away from school buildings, have already been enacted; but since there is no warning sign to catch the eye, and to show the vicinity of a school, they have always been a dead letter. As for the elevated roads,

where passing before school houses, they should be compelled to employ all possible sound-deadening devices.

"When, however, the erection of new structures is to be considered, the utmost care should be exercised in the selection of quiet sites. Side streets should be preferred to avenues, as less likely to be disturbed by the laying of future car-tracks. No school buildings should be erected within 200 feet of those sheltering noisy occupations, and — once erected — the neighborhood should be restricted, all disturbing trades being forced to seek other sites."

Mrs. Rice in the same article treats at length the subject of ventilating the schools, especially by means of open windows — a question the most pressing of all, for behind it "looms up the danger of undermining the health of the child and of exposing it to the risk of infection through impure and contaminated air."—*Review of Reviews*, January, 1912.

CORRESPONDENCE

THAT CANTEEN

To the Editor: I beg to dissent from your article in the January, 1912, Journal, page 33, in your statement commending Dr. W. W. Keen's advocacy of the restoration of the canteen in the United States Army. Dr. Keen is a great man, and I believe is a good man, but he is not infallible.

You say: "It is unfortunate that Dr. Keen's letter cannot have wide publication in the lay press so that well-intentioned but misguided individuals who are fighting the bill for the restoration of the canteen might have an opportunity of reading a sensible argument presented by a man who is not only familiar with the medical side of the question but is an avowed temperance advocate." I plead guilty: I am one of the "misguided individuals." I read carefully Dr. Keen's paper advocating the restoration of the canteen. I also read (and I wish all others could read) the papers of Col. L. M. Maus, surgeon, U. S. A., Dr. P. J. H. Farrell and Dr. J. Ambrose Johnston, all in *The Journal of the American Medical Association*. These men all disagree with Dr. Keen, and their arguments "alter the case." The apostle Paul warns us "not to do evil, that good may come."

I spent three years as a soldier in the Civil War, three months of that time as a private in the ranks. I never carried liquors of any kind in my canteen. God helping me, I will never by act or teaching advise a young man to drink beer as a beverage for fear he will learn to drink whisky! Every man is a free moral agent — he may go hellwards if he so choose — but I am not going to push him in that direction!

G. W. H. Kemper, M.D.

Muncie, Ind., Jan. 31, 1912.

[With all due respect to our distinguished friend, Dr. Kemper, who is generally on the right side of every question, and is always for the right as he sees it, our opinion as expressed in the editorial note to which attention has been called has not changed. The condition of the health and morals of Uncle Sam's soldiers, both with and without the canteen is, as has been pointed out repeatedly by those in a position to know, and who have considered the subject from an unbiased standpoint, testimony which tells its own story. If it is possible to prevent soldiers from securing alcoholic beverages on the outside, which is the logical solution of the problem, then the question of abolishing the canteen assumes an entirely different aspect; but if the use of alcoholic beverages cannot be entirely abolished then there is no logical reason for objecting to *control* of the practice; and while the canteen may be considered an evil it is far less an evil than the condition existing without the canteen, as experience has proved.—Editor.]

FEVER THERMOMETER SWALLOWED

Indianapolis, Jan. 23, 1912.

To the Editor: Your editorial mention of a unique report of a patient swallowing a clinical thermometer while asleep recalls a case of mine at the Detroit Marine Hospital in 1888, a typhoid fever patient who, in delirium, swallowed a curved thermometer. I was much alarmed, but our chief surgeon, the late Dr. W. H. Long, cousin of Dr. R. W. Long of Indianapolis, calmed my fears, expressing the opinion that the thermometer would come through all right. At his suggestion we first tried a weak emetic and then a mild cathartic, but without avail. If I remember rightly, the instrument passed the bowels on the twelfth day, registering 105, although the chart of morning and evening temperatures at no time showed above 101. I reported this case in the Annual Report of the U. S. Marine-Hospital Service for 1888.

F. C. Heath.

THE TRUTH ABOUT MEDICINES

This department presents, in concise form, facts about the composition, quality and value of medicines. Under "Reliable Medicines" appear brief descriptions of the articles found eligible by the A. M. A. Council on Pharmacy and Chemistry for inclusion with "New and Nonofficial Remedies." Under "Reform in Medicines" appear matters, tending towards honesty in medicines and rational therapeutics, particularly the reports of the A. M. A. Council on Pharmacy and Chemistry and of the Chemical Laboratory.

The text on which these abstracts are based may be obtained from the American Medical Association, 535 Dearborn Avenue, Chicago.

RELIABLE MEDICINES

Articles found eligible by the Council on Pharmacy and Chemistry for inclusion with "New and Nonofficial Remedies."

Propaesin is propyl aminobenzoate $C_6H_4.NH.COO(C_3H_7)$ 1:4. It is a fine colorless, odorless nearly tasteless powder, which produces numbness when placed on the tongue. It is almost insoluble in water but soluble in alcohol, chloroform and ether. Said to be stronger than ethyl aminobenzoate (anesthesin). Used in the treatment of gastralgia, gastric ulcer and other painful diseases of the mouth, esophagus and stomach. It is said to be useful to reduce the sensibility of the mucous membranes of the nose, ear and larynx and to produce local anesthesias. Parmele Pharmacal Co., New York. (*Jour. A. M. A.*, Jan. 6, 1912, p. 33).

Lactampoule is a pure culture of *Bacillus bulgaricus*, 12 Cc. in each ampule. Designed to afford a pure culture of the Bulgarian bacilli for the inoculation of milk or other culture medium, or for direct application in the treatment of affections of the body cavities. Fairchild Bros. & Foster, New York (*Jour A. M. A.*, Jan. 6, 1912, p. 34).

Bacillary Milk is a sterilized fat-free milk fermented by the action of a pure culture of *Bacillus bulgaricus*. It contains over 2 per cent. of lactic acid. It is used as a means for the ingestion of the Bulgarian bacilli and for its lactic acid as well as for its nutritive value. Fairchild Bros. & Foster, New York (*Jour. A. M. A.*, Jan. 6, 1912, p. 34).

Dextri-Maltose, Mead's contains approximately: maltose 52.0 per cent., dextrin 41.7 per cent. sodium chlorid 2.0 per cent. and moisture 4.3 per cent. It is a pale yellowish-white, granular, odorless powder, sweetish and soluble in water. Maltose being claimed to be more readily assimilable than other forms of sugar, Mead's Dextri-Maltose is proposed to supplement the carbohydrate deficiency of cow's milk. Used in milk mixtures in place of milk sugar. Mead, Johnson & Co., Jersey City, N. J. (*Jour. A. M. A.*, Jan. 6, 1912, p. 34).

Lactic Bacillary Tablets—Fairchild are made from a practically pure culture of the *Bacillus bulgaricus*. They are designed for internal administration in the treatment of intestinal fermentative diseases by the Bulgarian bacilli, with the design of accomplishing the acclimation of the bacilli in the alimentary tract, so as to secure their characteristic action against putrefactive fermentation by the production of lactic acid. One or two tablets before or after meals. The diet should not contain an excess of proteid, but should afford sufficient sugar. Fairchild Bros. & Foster, New York (*Jour. A. M. A.*, Jan. 20, 1912, p. 191).

Salvarsan (Arsenphenol-amin hydrochlorid, arsenobenzol, "606") is 3-diamino-4-dihydroxy-1-arseno-benzene hydrochlorid, $HCl.NH_2.OH.C_6H_3As:As.C_6H_3.OH.NH_2.HCl+2H_2O$, corresponding to 31.57 per cent. arsenic (As). It is marketed in hermetically sealed tubes each containing 0.6 Gm. (10 grains) salvarsan. Salvarsan is a yellow, crystalline, hygroscopic powder, very unstable in air. It is readily soluble in water, yielding a solution with an acid reaction. The addition of sodium hydroxid solution to an aqueous solution of salvarsan precipitates the free base ($NH_2.OH.C_6H_3As:As.C_6H_3.OH.NH_3$) which redissolves when more alkali is added.

It is given to adults in doses of 0.3 to 0.6 Gm. (5 to 10 grains); for children the dose is from 0.2 to 0.3 Gm. (3 to 5 grains). In infants doses of from 0.02 to 0.1 Gm. (⅓ to 1½ grains) may be used. For a subcutaneous and intramuscular injection a suspension in a neutral fluid is commonly employed. This suspension is prepared as follows: The weighed amount of salvarsan is triturated with 0.35 Cc. normal sodium hydroxid solution to each 0.1 Gm. salvarsan. To this liquid a solution of 0.1 Cc. of normal sodium hydroxid solution for each 0.1 Gm. of salvarsan in 8 Cc. of sterile water is added drop by drop until the liquid is exactly neutral to litmus paper. If the neutral point is passed the excess of alkali must be carefully neutralized by a weak solution of hydrochloric or acetic acid. Subcutaneously, salvarsan may also be administered in form of oily suspensions.

These suspensions should be injected at once, using a syringe with a very thick platinum needle.

For intravenous injection a clear alkaline solution is prepared as follows: The weighed quantity of salvarsan is triturated with 0.7 Cc. normal sodium hydroxid solution for each 0.1 Gm. of salvarsan and then more of the alkaline solution is cautiously added until complete solution occurs.

This solution is diluted with from 100 to 250 Cc. (5 to 8 ounces) of sterile physiologic salt solution (0.9 per cent.) and filtered through a sterile filter.

The contents of a tube should be used at once after opening and under no circumstances should the contents of a tube damaged in transportation or any remnants of the powder from previously opened tubes be used. Victor Koechl & Co. (*Jour. A. M. A.*, Jan. 20, 1912, p. 191).

REFORM IN MEDICINES

Prescription Nonsense.—Many competent physicians write poor prescriptions. These often are widely quoted and adopted though most unscientific, worthless or foolish. We are warned that it is the educated physician who is driving the laity to seek drugless treatments to their frequently serious detriment and often hopeless neglect, because he will not endeavor to find a simple drug, administered in a pleasant manner that will help the patient's troublesome symptom without injuring some other part of him. Also, as the layman hates more and more to be "drugged," as he terms it, and dislikes multiple mixtures, and dislikes to pay for a large bottle of some proprietary mixture, he often neglects to seek scientific advice (*Jour. A. M. A.*, Jan. 6, 1912, p. 34).

The Conspiracy of Silence.—Many lay publications have contracted to publish nothing detrimental to their advertising patrons. While so-called "independent" medical journals do not sign such contracts their failure to acquaint their readers with medical frauds amounts to the same thing. While certain important facts regarding Pepto-Mangen, Anasarcin, Tyree's Antiseptic Powder, Campho-Phenique, Phenalgin, Papine and Antikamnia have been published, "independent" medical journals have, in general, given no publicity to such reports. It is suggested that the "conspiracy of silence" will be maintained so long as an easy-going medical profession will support journals run in the interest of their advertisers (*Jour. A. M. A.*, Jan. 6, 1912, p. 36).

"Surgery, Gynecology and Obstetrics" to be Clean from Cover to Cover.—Recognizing the impossibilty of any one man being able to determine whether

or not certain proprietaries are worthy or unworthy additions to therapeutics the managing editor of Surgery, Gynecology and Obstetrics, Franklin H. Martin, announces that after Jan. 1 this high-class journal will carry advertisements only for those proprietary medicines which have been approved by the Council on Pharmacy and Chemistry (*Jour. A. M. A.*, Jan. 6, 1912, p. 51).

CONVICTIONS UNDER THE FOOD AND DRUGS ACT

Sweet's Honey Vermifuge.—This nostrum was found to contain santonin and senna as its essential constituents. It was declared misbranded because no honey could be found in it and also because the false claim of harmlessness had been made.

Dr. Towns' Epilepsy Cure.—This "epilepsy cure" from Fond du Lac, Wis., was declared misbranded because of the ridiculously false claim that it would "cure" epilepsy. Dr. Towns pleaded guilty before the Supreme Court had decided that lies such as he printed were not contrary to the spirit of the Food and Drugs Act.

Dixie Fever and Pain Powder.—Headache powders sold by Morris-Morton Drug Co., Fort Smith, Ark. Because of promiscuous, absurd and dangerous claims made for this nostrum it was declared misbranded.

Stello's Asthma Cure.—Claimed to be purely vegetable was found to contain: potassium iodid, glycerin, cannabis indica and alcohol. It was declared misbranded because the quantities and proportions of cannabis indica and of alcohol were not stated on the label. (*Jour. A. M. A.*, Jan. 6, 1912, p. 51).

Society of Universal Science.—This was a pseudo-medical cult giving mail-order courses in the "Laws of Human Electricity." It sold mail-order courses that purported to teach the "Laws of Human Electricity and Their Application to Health, Mind Power and Spiritual Growth." The president of this so-called society was one Andrew McConnell.

Among the responsible men who were duped into endorsing this fake was the Rev. Dr. Robert S. MacArthur, who stands high in the religious world and who on July 7, 1908, at Carnegie Hall, in New York City, is reported to have introduced Andrew McConnell in most glowing terms as the founder of a new method of healing. Probably because of Rev. MacArthur's support many well-known citizens of New York City were present in the audience.

Recently McConnell surrendered to the police. Under the alleged impulse of delusions that she was interfering with his great "work" he had shot at his wife twice. McConnell appears to be an irresponsible paranoiac; it may be asked to what extent Rev. Dr. Robert MacArthur and those other "intellectuals" who listened so gravely to McConnell's idiotic vaporings were fostering the megalomania which has resulted in a homicidal frenzy of well-nigh fatal consequence (*Jour. A. M. A.*, Jan. 13, 1912, p. 129).

"Thyroidectomized Milk."—Many attempts have been made in recent years to alleviate the symptoms of hyperthyroidism by the administration of the milk, serum or dried blood of animals deprived of the thyroid gland. The theory underlying these attempts was that, after removal from an animal of the thyroid, toxic substances accumulate in the blood, or antibodies are formed, some of which pass into the milk, and which in some way neutralize the excess of thyroid secretion which is believed to be present in the blood in hyperthyroidism. The reports from the use of such preparations have not been very uniform. Perhaps the most favorable results reported followed the use of comparatively large amounts (a pint to two quarts daily) of the fresh milk of thyroidless goats.

Dr. Reid Hunt has suggested, that it was the milk *per se* rather than the presence in it of antibodies which was responsible for the improvement noted. Recent work suggests that Hunt's explanation may be correct. Further clinical observations on this subject are much to be desired (*Jour. A. M. A.*, Jan. 20, 1912, p. 197).

Applying the Penalty.—A law that provides no penalties for its violation is worthless; in fact, it is worse than worthless, for not only is the law itself inefficacious, but the impunity with which it may be violated creates disrespect for all law. The various pure food laws of the country have accomplished good because drug adulterators and food sophisticators have found it either inconvenient or expensive to violate them. On the other hand the efforts of the Council on Pharmacy and Chemistry to protect the medical profession against frauds and misrepresentation in proprietary medicines are rendered largely abortive because the Council is purely an advisory body and its findings do not result in the penalizing of the concern found guilty of fraud or misrepresentation. The work of the Council would become more effective if physicians would confine their proprietary prescribing to such preparations as had been admitted to New and Nonofficial Remedies and if they would demand that publishers of medical journals, to which they subscribe, purge their advertising pages of products shown by the Council to be worthless, fraudulent, or both. The work of the Council would be effective only if it receives the full support of the medical profession (*Jour. A. M. A.*, Jan. 20, 1912, p. 198).

Medical Journals and Nostrum Exploitation.—The 250 or 300 independent medical journals published in the United States may be broadly divided into two classes: first, those whose subscription price is sufficient to warrant physicians to expect them to be run in the interest of the profession, and second, those whose subscription price is merely nominal and whose real support comes from the advertisers rather than from the subscribers. The term "independent" as applied to medical journals of the latter class, is misleading. Such journals, it is true, are independent of the medical profession, but they are subserviently dependent on the manufacturers of proprietary remedies whose advertising appropriations support them. While the journals of the first class could give the profession a square deal those of the second class cannot, for they are dependent on their advertising patrons (*Jour. A. M. A.*, Jan. 20, 1912, p. 198).

Exposures of "Patent Medicines."—The interest and cooperation which the educational campaign of the American Medical Association is receiving is shown by the following taken from the Albuquerque *Morning Herald:* "The public-spirited gentlemen who are now posting standard works endorsed by the American Medical Association in various public places in Albuquerque, to enlighten the credulous public on the nature of the various 'cures' and nostrums now in vogue, deserve the gratitude of the people. This is an educational crusade almost as important as the other one started here to teach the boys and girls about the prevention of tuberculosis. 'The Great American Fraud' as Mr. Adams has so aptly termed it, will soon be able to see its finish and thousands of dollars now being donated by the gullible ailing to cold-blooded sharps who play on their apprehensions will be spent to better purpose. War on the fake dopes is war in the interest of the stomachs, health and lives of our people and such a crusade deserves the support of every one. At least it is worth the public's while to read these little books now being distributed about the city" (*Jour. A. M. A.*, Jan. 20, 1912, p. 200).

Publications Deriving Revenue by Promotion of Fakery.—Those publications which derive their revenue principally from the promotion of fakery use various tactics to discredit those forces engaged in exposing worthless or fraudulent nostrums. In an editorial the *Druggist's Circular*, a consistent champion of honest pharmacy, notes that while many journals believe it

wiser to say nothing in the hope that the storm will blow over, others cannot keep their equanimity and attempt in various ways to defend the nostrum promoters. Readers, generally, however, have grown much wiser regarding many things than they were a few years ago, and as just intimated, are becoming more and more able to discern the whereabouts and the nature of the Ethiopian in the nostrum woodpile. The number of people that may be fooled all the time is continually growing smaller (*Druggist's Circular*, Jan. 1912, p. 4).

Which Will Be Next?—With the January issue, *Surgery, Gynecology and Obstetrics* advertises no pharmaceutical preparation that has not been approved by the Council on Pharmacy and Chemistry. Three independent journals now support the Council in this way, namely, *Surgery, Gynecology and Obstetrics*, *Southern Medical Journal* and the *Cleveland Medical Journal*. Which will be next? (*Jour. A. M. A.*, Jan. 20, 1912, p. 200).

The J. B. L. Cascade Treatment.—The J. B. L. ("Joy-Beauty-Life") Cascade is a device sold by one Chas. A. Tyrrell, an eclectic physician of New York City, for the administration of rectal enemas. Tyrrell has improved—commercially—on the propaganda started many years ago by Wilford Hall who declared that all the ills of the flesh are due to the fact that people do not make a practice of flushing their colons. Tyrrell sells the appliance for giving these injections and claims that apoplexy, consumption, Bright's disease, syphilis and cancers "all have their origin in the colon" and that "Typhoid fever and appendicitis may positively be cured and absolutely prevented by the 'J. B. L. Cascade' treatment." Tyrrell's treatment, which is said to cure everything, consists of his syringe and stick of soap and his "celebrated 'J. B. L. Antiseptic Tonic'". He also sells the "Ideal Sight Restorer" claimed to cure the refractive errors of the eye —nearsight, farsight, oldsight and astigmatism—and also cataract, glaucoma, cross-eye and paralytic blindness (*Jour. A. M. A.*, Jan. 20, 1912, p. 213).

Mercolized Wax.—"Mercolized Wax" belongs to the "prescription fake" type of nostrum. It is advertised "to remove the thin veil of dead cuticle and leave the skin dry, clear and beautiful." Analysis showed it to be an ointment containing 10 per cent. of zinc oxid and 10 per cent. ammoniated mercury .(*Jour. A. M. A.*, Jan. 20, 1912, p. 218).

Limitations of Organotherapeutics.—The glands of internal secretion are assuming more and more importance in medicine. Attention is now being especially directed to the milder forms of hypo- and hyperactivity of these glands.

While organs of animals have been used in medicine for a long time we are but beginning to learn the conditions in which organotherapeutics promises to be of value. In discussing recent advances the *Journal A. M. A.* says: "The ability to do this in a few cases is due to recent experimental and accurate clinical work, for it is a striking fact that although organotherapeutics is one of the oldest and most wide-spread forms of therapy, not a single result of value was obtained until empiricism was replaced by rationalism." From recorded observations it would seem, *a priori*, that cases of thyroid deficiency would offer a more promising field for organotherapeutics than would cases of parathyroid and suprarenal deficiency, and these in turn than cases of pancreas deficiency.

It is probable that "not many of the 250 or more preparations of organs of animals found on the market are creditable to modern medicine or to the manufacturers exploiting them. The lists of commercial preparations include such substances as liver, kidney, brain, spinal cord and salivary glands—organs for which there is no, or but very slight, evidence, that they form specific internal secretions—and various preparations of the "internal secretion" of the pancreas, although there is evidence that none of this secretion is retained, at least in an active form, in this gland." (*Jour. A. M. A.*, Jan. 27, 1912, p. 278).

Phenalgin.—"Phenalgin is a synthetic coal-tar product"—this claim was made some years ago when the profession took the manufacturer's claims at their face value. Then the Council on Pharmacy and Chemistry came into existence and in a report stated that Phenalgin consisted of acetanilid 57 parts, sodium bicarbonate 29 parts and ammonium carbonate 10 parts. To offset the report of the Council the manufacturers, the Etna Chemical Company, adopted the slogan "Phenalgin is just what we have always said it to be."

While the Food and Drugs Act required abandonment of the former claim that Phenalgin was a synthetic and an acknowledgment on the label that it contains acetanilid as its chief constituent, while the firm found it expedient to omit certain other claims from the label, in a general way the same claims are made for the product now that were made formerly. That is, although the Food and Drugs Act has forced a certain degree of truthfulness on the Phenalgin labels, the advertising matter is as fraudulent and as untruthful as ever it was.

On the cartons in which the bottles of Phenalgin came, it is stated that the product is "for dispensing purposes only." Yet, as a matter of fact, practically any layman can go to any drugstore and obtain this product, otherwise it would not be necessary to include with every bottle a circular naming the diseases for which this acetanilid mixture is supposed to be good and to have the name of the product and of the firm making it blown into the bottle! (*Jour. A. M. A.*, Jan. 27, 1912, p. 293; also see p. 80 of this issue.)

Fraudulent Proprietaries.—What is a fraudulent proprietary medicine? A fraudulent medicine is one that is exploited under false assertions regarding either its composition, its therapeutic effects or both. Formerly false formulas were circulated with utter abandon and no therapeutic claim appeared too absurd. The exposures of the Council on Pharmacy and Chemistry and the enforcement of the Food and Drugs Act have made the declaration of false formulas a risky procedure and hence they have been abandoned altogether or are so worded as to be meaningless. As regards therapeutic claims there has been a slight tendency to abandon the "lie direct" for the "lie with circumstance," but in general the claims are well-nigh as fraudulent to-day as they were ten years ago. Phenalgin illustrates the type of proprietary humbug that is foisted on the medical profession under claims that are both false and vicious (*Jour. A. M. A.*, Jan. 27, 1912, p. 280).

A Marvelous Mixture.—Take acetanilid 57 parts, of sodium bicarbonate 29 parts, of ammonium carbonate 10 parts and mix. You will then have an "ammoniated coal-tar product" which is such a "judicious combination of ingredients" that it may be counted on "to secure maximum anodyne and analgesic effect." This is "Phenalgin" and, while containing more than 50 per cent. acetanilid, yet its exploiters claim that it has "no depressing effect," "is never followed by depression" and "Its prolonged administration does not give rise to destructive blood metamorphosis." These and similar false statements are made in this year of miracles, 1912, and a large proportion of a presumably scientific profession "fall for it" and a multitude of medical editors stand sponsor for it! (*Jour. A. M. A.*, Jan. 27, 1912, p. 280).

The Journal of the American Pharmaceutical Association.—With the object of furnishing a more direct and speedy means of communication between the American Pharmaceutical Association and its members, the association has established a monthly journal which is to be its official organ. The first number has just appeared. Like the "independent" medical journals, drug journals, in general, have found it expedient

to withhold publicity of the Association's propaganda for honest medicine. This journal, it is expected, will be the third drug journal that will help the propaganda (*Jour. A. M. A.*, Jan. 27, 1912, p. 282).

Blight and the NaturAID Fake.—In discussing the personnel of the National League for Medical Freedom the connection of Reynold E. Blight of Los Angeles, Cal., with the NaturAID Health Utilities Company was referred to. The reference was based on circulars sent broadcast by the NaturAID concern. From protests sent by Mr. Blight denying his connection with the concern it appears that, although living in the town in which this quack concern is located, he remained in ignorance of the misuse of his name until it was called to his attention by a journal published in the interest of a profession with which he is not connected and issued 2,000 miles from where he lives (*Jour. A. M. A.*, Jan. 27, 1912, p. 294).

Ayer's Cherry Pectoral.—In pointing out that "The Conspiracy of Silence," which formerly reigned over patent medicines now dominated proprietary nostrums, it was suggested that a death due to Ayer's Cherry Pectoral would not have been noted in newspapers. The J. C. Ayer Company objected to this statement because their Cherry Pectoral of to-day—"contains no anodyne whatever." The incident calls attention to the variability of composition of proprietaries, whether of the "patent medicine" or the "ethical" kind. Previous to 1905, Ayer's Cherry Pectoral contained morphin and alcohol. The firm having decided to publish its formula the composition was changed. Terpin hydrate was added, some of the drugs previously used were omitted and heroin was substituted for morphin. The alcohol was retained. Later the formula was again revised and the alcohol left out. Still later the formula was re-re-revised and the heroin left out. Formulas may come and formulas may go, but a nostrum goes on forever—or at least so long as the newspapers will carry its advertisements! If the composition of a "patent medicine" which is sold under an open formula should undergo such radical changes in a comparatively short time, what is happening in the case of those products whose composition has never been made public and whose manufacturers make no pretense of "playing fair" with the public? (*Jour. A. M. A.*, Jan. 27, 1912, p. 294).

Formamint.—Formamint Tablets are widely advertised and extravagantly exploited to the laity in Great Britain. The preparation is put out by the same concern that exploits Sanatogen. The medical profession of this country is now being circularized and advertisements are appearing in medical journals. They already appear in the *Medical Record, New York Medical Journal* and *American Journal of Clinical Medicine*. As soon as American physicians have furnished the requisite number of testimonials and have recommended it to a sufficient number of their patients the advertisements will no doubt be quietly dropped from the American medical journals and the advertising pages of newspapers and magazines will be called into service (*Jour. A. M. A.*, Jan. 27, 1912, p. 295).

DEATHS

Dr. J. A. Walser, aged 59, who has conducted a drug store in Anderson for years, died January 8.

Dr. John Wesley Moore died at his home in Mexico, Ind., December 11, from tuberculosis, aged 63.

Mrs Belle S. Burke, aged 65, widow of Dr. George W. Burke, died at her home in Newcastle, January 15.

Mrs. Mary Treat, aged 79, widow of Dr. H. J. Treat, died January 5 at her home in Terre Haute.

Dr. J. T. Genolin, aged 57, died of an overdose of drug taken for insomnia, at his office in Bloomington, January 25.

Dr. Joseph R. Cravens died at his home in Anderson, January 31. He had practiced medicine in Anderson for many years.

Dr. John William Arnold, formerly of Shideler, Ind., died in Sts. Mary and Elizabeth Hospital, Louisville, Ky., December 12, from pneumonia, aged 59.

Dr. Thurston Smith, aged 45, a former army surgeon in the Philippines, died of pneumonia at Bloomington, January 7. He had been secretary of the Bloomington city board of health for three years.

Dr. O. A. Lett, for several years a practitioner of Newburg, Ind., died at his home in Corydon, Ky., December 11, from the effects of morphin, self-administered, it is believed, with suicidal intent, while despondent, aged 43.

Dr. John M. Stucky died at his home in Gosport, January 17, following a brief illness from pneumonia. Dr. Stucky was born in Jefferson County, Ky., June 15, 1825, beginning the study of medicine at an early age. He came to Gosport in 1848, immediately following his graduation from the Louisville Medical School. Dr. Stucky served as assistant surgeon in the Fifty-Ninth Regiment Indiana Volunteers in the Civil War.

Dr. Charles H. Abbett, for more than sixty years a resident of Muncie, died at his home, January 11, following a stroke of apoplexy. Dr. Abbett was born at Lafayette, Ind., March 10, 1838, coming to Muncie when but 12 years of age. Following a common school education he studied medicine with his father, and graduated from the Cincinnati Medical College. He was appointed surgeon of the Thirty-Sixth Indiana Regiment soon after the beginning of the Civil War, which position he held until the close of the war.

Dr. Hiram Van Sweringen, one of Indiana's most prominent physicians, died at his home in Fort Wayne, February 1, aged 67 years, following an illness of several months' duration. Dr. Sweringen was born in Navarre, Ohio, Oct. 5, 1844. He came to Fort Wayne at an early age, his first employment being in a drug store where he served until he rose to position of chief pharmacist. At the age of 16 he enlisted for service in the Forty-Fourth Indiana Regiment, but his parents forced him to leave the service on account of his age. Later he established a drug store, and while in this business he published a pharmaceutical lexicon, at one time famous but now out of print. While in the drug store Dr. Sweringen began the practice of medicine, though he did not attend a medical school until later, when he went to the Jefferson Medical College, Philadelphia, being granted the degree of M.D. in 1876. In 1878 he was appointed to the chair of materia medica and therapeutics in the Fort Wayne Medical College, which he held until the college went out of existence. In 1883 Monmouth College, of Illinois, honored Dr. Sweringen with the degree of A.M., and in 1884 he was invited to accept the chair of materia medica and therapeutics in the Chicago College of Physicians and Surgeons. In 1904 Dr. Sweringen was the republican candidate for state senator, being defeated by a narrow majority. He was for years a member of the board of examining surgeons for the pension department. He was a member of his county and state medical associations, and of the American Medical Association.

I. Losthope Yesterday was to have given a lecture on the "Benefits of Christian Science" at Batterbury Park on a recent Sunday, but at the last minute the lecture was called off. While lighting the gasoline torch the speaker burned a hand and the pain was so severe he would not attempt to orate.

Bernard Kohorsky has been taking the Crafton treatment for pernicious anemia and has consumed so much hydrochloric acid he can burn a clean spot on the sidewalk every time he expectorates.

It is reported that beautifully made copies of "Who's Who in Quackdom," printed on India paper and bound in hand-tooled leather, soon will be mailed to the Indiana State Board of Medical Registration and Examination.

There are too many doctors charging $2 for inserting a 10-cent tampon twice weekly, and who see no further than the front of their speculæ. More case history, more delving into the mysteries of those cases, less pessary injury and less tamponading will give you more permanent results, and the quicker you get your cases on the road to recovery the more cases they in turn will refer to you. Don't be afraid to continue your studies. The writer knows many gray-haired doctors who are yet energetic students. They happen also to be the most successful men.

We understand that every druggist on whose window you see "Rexall" is at least a $200 stockholder in the United Drug Company, who have "a remedy for every ill." Don't expect the Rexall druggist in your city to run his legs off getting you a case, for he comes in for his percentage when United declares a dividend.

Dr. G. A. B. Tinkersall of Ft. Rider, Ind., is now specializing in general surgery and chronic diseases. He also gives piano lessons and teaches a limited number to play the banjo. He writes his alumni association that for the last two years business has been picking up, and he hopes to be able to buy a second-hand automobile next year.

After many years of effort to make the medical men understand the danger of unoperated appendicitis cases, and when we almost believed the argument settled, comes now a newspaper article saying that the Mayos assert that not enough carcinomatous stomachs are operated and *many appendicitis cases are better off without surgical intervention.* If we may accept the article as a truthful one (generally medical items in newspapers are beautiful pipe dreams), where, oh where in the shifting sands may we find our

foundations. Just as we get our respective vests pulled down and our chins wiped off, we are invited again to the feast. (And yet Dr. Charles Mayo had his appendix removed in New York as soon as he could, after having a diagnosis of appendicitis.)

Dr. Smartleigh, recently retired as intern in an Evansville hospital, is a brilliant young man. He received a phonograph for Xmas and plays beautifully on it with a uterine sound!

After months of search, the secretary of the Homo County Medical Society has found in his stable loft the membership list and the minutes of the last meeting, and announces a meeting on the 15th, providing he is not too busy at that time.

We wonder what part of hell is reserved for deliberate dead-beats.

Gabe Stifferfoot does not like the Martinsville mineral water. A few weeks ago Gabe was down with rheumatic fever and proved so cussed that Dr. Wellsbach sent him to Martinsville. Gabe improved within three days, and was able to walk about. On the fifth day, while standing near a spigot of the running water, he absent mindedly lighted a cigar and the explosion which followed cost him $40 for damages. It broke him to pay the bill and he had to return home. No wonder he is mad!

Dr. Albert E. Sherm has issued invitations for a St. Vitus dance at his sanitarium. Friday the 13th.

NEWS, NOTES AND COMMENTS

Dr. Charles W. Hoyt of Muncie and Miss Setta Troxell of Germantown, Ohio, were married January 24.

Dr. A. H. Shaffer, one of the pioneer physicians of Huntington, celebrated his eighty-third birthday anniversary recently.

A tract of land 170 x 301 feet, adjoining the Norways Sanitarium, Indianapolis, has been purchased by Dr. Albert E. Sterne and others for $10,200.

Dr. H. E. Gabe announces the removal of his office from 911 Virginia Avenue to Suite 606, sixth floor, Hume-Mansur Building, 23 East Ohio Street, Indianapolis.

The National Confederation of State Medical Examining and Licensing Boards will hold its twenty-second annual meeting in Chicago, on Thursday, February 29, at the Congress Hotel.

Dr. J. H. B. Adams, Indianapolis, has recently been sentenced to thirty days' confinement in the city jail and fined $25 and costs for misbranding a medicine in regard to the percentage of certain ingredients.

A meeting of physicians of Kendallville was held December 21 to discuss the needs of a hospital in the city. A free site 105 x 480 feet has been offered for the hospital and on this it is planned to erect a twelve-room building, at an approximate cost of $10,000.

On January 11 the new buildings of the New York Post-Graduate Medical School were opened to inspection and use. The plant provides for eleven operating rooms and groups of teaching rooms for each of the departments, besides extending the capacity of the hospital service to about 400 beds. The curriculum of the school is correspondingly extended and adapted to the increased facilities.

A dispensary for the worthy poor of the state has been opened at the Indiana University School of Medicine, Indianapolis. It will be in charge of Dr. Charles P. Emerson. Patients from Indianapolis will be cared for in the city dispensary, but those outside of the city will be sent to the state dispensary. A new laboratory for the teaching of operative surgery, experimental physiology, pathology and pharmacology has been fitted up at the School of Medicine.

Dr. Sun Yat Sen, elected president of the Chinese Republic at Nanking, is spoken of as a man of rare genius, who has converted China to democratic ideas. He is a Christian physician, a graduate of an English college in Hong Kong, but has practiced little, having given most of his life to his idea of making China a republic.

Whether or not the republic proves to be a lasting one, Dr. Sun has a creditable history thus far, and his confrères in the medical profession can be proud of him.—*The Journal A. M. A.*, Jan. 13, 1912.

The board of trustees of the Indiana University has agreed to the proposal, made by a committee appointed by Mayor Shank of Indianapolis, that a tract of land on West Michigan Street be offered the city as a location for the State Hospital. Mayor Shank has recommended a bond issue of $40,000 to pay for the land upon which will be erected a state hospital provided by Dr. R. W. Long. This will obviate the necessity of using Military Park, as provided by the state legislature, to which many organizations, as well as the city of Indianapolis, objected. On this tract of land the Indiana University School of Medicine expects to erect its own buildings, and Dr. Long has stated recently that he will also build and equip a dispensary for the city of Indianapolis.

Since January 1 the following articles have been accepted for inclusion with New and Nonofficial Remedies:

Lactic Bacillary Tablets, Fairchild Bros. & Foster.

Salvarsan, Victor Koechl & Co.

Neisser Bacterin Mixed, H. K. Mulford Co.

Pneumo-Bacterin Mixed, H. K. Mulford Co.

Scarlatina Bacterin, H. K. Mulford Co.

Typho-Bacterin Mixed, H. K. Mulford Co.

Rabies Vaccine, H. K. Mulford Co.

Widal Test — Bordens Modification, H. K. Mulford Co.

Von Pirquet Test for Tuberculosis, H. K. Mulford Co.

Bass Test for Typhoid Fever, H. K. Mulford Co.

Gynoval, Farbenfabriken of Elberfeld Co.

SOCIETY PROCEEDINGS

INDIANA STATE MEDICAL ASSOCIATION

The following is a list of those who have paid Association dues between the dates Jan. 1 and Feb. 1, 1912. The number before each name indicates the number of the membership card issued by Secretary Combs. The list published in the January number includes all those who paid dues to January 1, or up to 1238, inclusive. Errors in name or address should be reported to Secretary Combs, giving number of the membership card in order to facilitate prompt detection of the error on the membership records. The list as published in the January and February numbers constitutes the mailing list of The Journal, and any member whose name appears on the published list and who does not receive his journal is requested to write for a duplicate copy.

[N. B. Card No. 654 should read T. Roy Cook; Card No. 1133 should read C. L. Amick. In January issue.]

No.	Name and Address	County Society
1239	D. F. Randolph, Waldron	Shelby
1240	G. I. Inlow, Shelbyville R. R. No. 6	Shelby
1241	F. E. Ray, Shelbyville	Shelby
1242	J. E. Keeling, Waldron	Shelby
1243	Samuel Kennedy, Shelbyville	Shelby
1244	Morris Drake, Shelbyville	Shelby
1245	Thos. G. Green, Shelbyville	Shelby
1246	Laura Carter, Shelbyville	Shelby
1247	B. G. Keeney, Shelbyville	Shelby
1248	W. C. McFadden, Shelbyville	Shelby
1249	W. H. Kennedy, Shelbyville	Shelby
1250	J. W. Parrish, Shelbyville	Shelby
1251	H. E. Phares, Shelbyville	Shelby
1252	L. M. Knepple, Kokomo	Howard
1253	W. H. McClurg, Kokomo	Howard
1254	J. W. Wright, Kokomo	Howard
1255	W. J. Martin, Kokomo	Howard
1256	O. D. Hutto, Kokomo	Howard
1257	W. I. Scott, Kokomo	Howard
1258	Edgar Cox, Kokomo	Howard
1259	N. C. Hamilton, Kokomo	Howard
1260	C. J. Adams, Kokomo	Howard
1261	J. M. Moulder, Kokomo	Howard
1262	T. C. Cochran, Kokomo	Howard
1263	S. Roscoe Chancellor, Kokomo	Howard
1264	L. Dewees, Hemlock	Howard
1265	E. U. Powell, Greentown	Howard
1266	D. C. Peters, Greentown	Howard
1267	J. L. Puckett, Kokomo	Howard
1268	R. H. Smith, Kokomo	Howard
1269	Arthur Miller, Kokomo	Howard
1270	R. F. Scott, Kokomo	Howard
1271	James H. Carnelley, Kokomo	Howard
1272	W. H. Martin, Kokomo	Howard
1273	W. H. Harrison, Kokomo	Howard
1274	Geo. D. Marshall, Kokomo	Howard
1275	E. M. Shruk, Kokomo	Howard
1276	Russell Schuler, Kokomo	Howard
1277	E. F. Tindal, Muncie	Delaware
1278	Clay A. Ball, Muncie	Delaware
1279	A. A. Cecil, Muncie	Delaware
1280	Frank Downing, Yorktown	Delaware
1281	O. W. Owens, Muncie	Delaware
1282	Edwin G. Kyte, 3503 N. Salem St., Indianapolis	Marion
1283	Thos. L. Thompson, 1422 Lyndon St., South Pasadena, Cal.	Marion
1284	J. H. Payne, Julietta	Marion
1285	Theodore Potter, Newton Claypool Bldg., Indianapolis	Marion
1286	H. S. Thurston, Willoughby Bldg., Indianapolis,	Marion
1287	F. R. Charlton, Hume-Mansur Bldg., Indianapolis	Marion
1288	Bernays Kennedy, Hume-Mansur Bldg., Indianapolis	Marion
1289	S. J. Hatfield, 408 Pennway Bldg., Indianapolis	Marion
1290	H. G. Hamer, Hume-Mansur Bldg., Indianapolis	Marion
1291	C. F. Neu, Hume-Mansur Bldg., Indianapolis	Marion
1292	David Ross, Board of Trade Bldg., Indianapolis	Marion
1293	A. W. Brayton, Newton Claypool Bldg., Indianapolis	Marion

No.	Name and Address	County Society
1294	T. B. Noble, Newton Claypool Bldg., Indianapolis	Marion
1295	A. C. Kimberlin, Willoughby Bldg., Indianapolis	Marion
1296	Fletcher Hodges, 2 W. New York St., Indianapolis	Marion
1297	W. B. Kitchen, Pennway Bldg., Indianapolis	Marion
1298	John Cunningham, Willoughby Bldg., Indianapolis	Marion
1299	Wm. T. S. Dodds, Hume-Mansur Bldg., Indianapolis	Marion
1300	H. O. Pantzer, Willoughby Bldg., Indianapolis,	Marion
1301	Geo. D. Kahlo French Lick	Marion
1302	Chas. J. Cook, 958 E. Washington St., Indianapolis	Marion
1303	Harry J. Weil, 2103 E. Michigan St., Indianapolis	Marion
1304	S. A. Furniss, 132 W. New York St., Indianapolis	Marion
1305	H. E. Gabe, 606 Hume-Mansur Bldg., Indianapolis	Marion
1306	Wm. H. Long, 760 W. New York St., Indianapolis	Marion
1307	S. E. Earp, 24½ Kentucky Ave., Indianapolis,	Marion
1308	P. J. Watters, Central Insane Hosp., Indianapolis	Marion
1309	T. W. Helming, East & Morris Sts., Indianapolis	Marion
1310	J. L. Thompson, Amer. Central Life Bldg., Indianapolis	Marion
1311	C. S. Woods, City Board of Health, Indianapolis	Marion
1312	A. B. Graham, Hume-Mansur Bldg., Indianapolis	Marion
1313	Henry W. Furniss, 834 N. West St., Indianapolis	Marion
1314	G. B. Hammond, English	Crawford
1315	G. W. Baylor, Milltown	Crawford
1316	J. Myers, Alton	Crawford
1317	F. R. Gobbel, English	Crawford
1318	J. J. Johnson, Milltown	Crawford
1319	P. T. Grant, Marengo	Crawford
1320	H. H. Deen, Leavenworth	Crawford
1321	C. D. Luckett, English	Crawford
1322	J. E. Weller, Richmond	Wayne
1323	S. E. Smith, East Haven	Wayne
1324	F. E. Hill, Muncie	Delaware
1325	Hugh A. Cowing, Muncie	Delaware
1326	C. Melvin Mix, Muncie	Delaware
1327	Milo Gibbs, Greenfield	Hancock
1328	O. A. Collins, Mohawk	Hancock
1329	R. C. Kirkwood, Kramer	Fountain-Warren
1330	A. M. Lakin, State Line	Fountain-Warren
1331	J. W. Snider, Fairland	Shelby
1332	D. P. Murry, Dunkirk	Jay
1333	G. O. Barnes, Seymour	Jackson
1334	C. E. Gillespie, Seymour	Jackson
1335	A. May, Crothersville	Jackson
1336	N. G. Harrod, Tampico	Jackson
1337	J. H. Carter, Seymour	Jackson
1338	J. M. Shields, Seymour	Jackson
1339	Chas. L. Ackerman, Freetown	Jackson
1340	P. A. Kendall, Crothersville	Jackson
1341	D. J. Cummings, Jr., Brownstown	Jackson
1342	D. Leroy Perrin, Crothersville	Jackson
1343	E. D. Wright, Seymour	Jackson
1344	Neal Matlock, Medora	Jackson
1345	A. G. Osterman, Seymour	Jackson
1346	L. B. Hill, Seymour	Jackson
1347	H. R. Kyte, Seymour	Jackson
1348	J. M. Jenkins, Cortland	Jackson
1349	D. H. Richards, Vincennes	Jackson
1350	G. H. Kamman, Seymour	Jackson
1351	James K. Ritter, Seymour	Jackson
1352	C. A. Hunter, Redington R. F. D. 8	Jackson
1353	C. E. Sims, Kurtz	Jackson
1354	H. R. Luckey, Seymour	Jackson
1355	D. J. Cummings, Sr., Medora	Jackson
1356	L. Ruddick, Seymour	Jackson
1357	G. G. Graessle, Seymour	Jackson
1358	G. W. Farver, Seymour	Jackson
1359	Fred Heller, Brownstown	Jackson
1360	M. F. Gerrish, Seymour	Jackson
1361	C. H. Adye, Rockport	Spencer
1362	O. C. Baumgaertner, Rockport	Spencer
1363	C. S. Baker, Chrisney	Spencer
1364	C. D. Ehrman, Rockport	Spencer
1365	H. G. Weiss, Rockport	Spencer
1366	H. T. Harter, Newtonville	Spencer
1367	G. W. Bradley, Gentryville	Spencer
1368	W. H. Williams, Dale	Spencer
1369	D. V. McClary, Dale	Spencer
1370	N. A. James, St. Meinrad	Spencer
1371	S. P. Gwaltney, Chrisney R. D.	Spencer
1372	J. C. Jolly, Lake	Spencer
1373	G. B. DeTar, Lake	Spencer
1374	A. W. Bean, Chrisney	Spencer
1375	J. C. Glackman, Hatfield	Spencer
1376	G. W. Horrom, Hatfield	Spencer
1377	S. W. Stuteville, Grandview	Spencer
1378	J. J. Schweitzer, Santa Claus	Spencer
1379	H. Q. White, Grandview	Spencer
1380	R. B. McAlpin, Greenwood	Johnson
1381	J. C. Ross, Bloomington	Monroe
1382	J. E. Luzadder, Bloomington	Monroe
1383	W. N. Culmer, Bloomington	Monroe
1384	Etta Charles, Summitville	Madison
1385	L. O. Williams, Anderson	Madison
1386	John W. Cook, Pendleton	Madison
1387	Jonas Stewart, Anderson	Madison
1388	F. F. Mendenhall, Elwood	Madison
1389	L. F. Schmauss, Alexandria	Madison
1390	J. E. Hall, Alexandria	Madison
1391	A. E. Otto, Alexandria	Madison
1392	I. Miley, Anderson	Madison
1393	B. H. Perce, Anderson	Madison
1394	Seth Irwin, Summitville	Madison
1395	Benj. H. Cook, Anderson	Madison
1396	C. T. Tobias, Elwood	Madison
1397	J. W. Crismond, Anderson	Madison
1398	N. A. Cary, Silver Lake	Kosciusko
1399	P. C. Bentle, Greensburg	Decatur
1400	I. N. Sanders, Greensburg	Decatur
1401	S. B. White, Greensburg	Decatur
1402	C. F. Kercheval, Greensburg	Decatur
1403	Curtis Bland, Greensburg	Decatur
1404	C. R. Bird, Greensburg	Decatur
1405	R. M. Thomas, Greensburg	Decatur
1406	J. M. Wood, Greensburg	Decatur
1407	M. A. Tremain, Adams	Decatur
1408	J. H. Alexander, Greensburg	Decatur
1409	Geo. S. Crawford, Clifty	Decatur
1410	Harley S. McKee, New Point	Decatur
1411	W. E. Thomas, Clarksburg	Decatur
1412	J. A. Welch, Letts	Decatur
1413	O. F. Welch, Westport	Decatur
1414	J. C. Hill, Westport	Decatur
1415	P. E. Clark, Clarksburg	Decatur
1416	Stephen B. Elrod, Henryville	Clark
1417	R. S. Taggart, New Washington	Clark
1418	A. A. Thompson, Tyner	Marshall
1419	Ed M. Land, Grantsburg	Crawford
1420	N. W. King, Taswell	Crawford
1421	Wm. R. Cravens, Bloomfield	Greene
1422	Thos. Aydelotte, Lyons	Greene
1423	Granville Reynard, Union City	Randolph
1424	J. P. Wilson, Scottsburg	Scott
1425	O. C. Murphy, Scottsburg	Scott
1426	Levi McClain, Scottsburg	Scott
1427	W. L. McClain, Scottsburg	Scott
1428	Geo. F. Cline, Scottsburg	Scott

No.	Name and Address	County Society
1429	T. E. Biery, Scottsburg	Scott
1430	M. W. Rothrock, Evansville	Vanderburgh
1431	E. R. Borley, South Bend	St. Joseph
1432	Guido Bell, 431 E. Ohio St., Indianapolis	Marion
1433	T. C. Kennedy, Pennway Bldg., Indianapolis	Marion
1434	Wm. Shimer, State Board of Health, Indianapolis	Marion
1435	Lillian C. Lowder, 639 N. Penn St., Indianapolis	Marion
1436	E. Russell Bush, 1035 S. Meridian St., Indianapolis	Marion
1437	W. N. Wishard, 723 Hume-Mansur Bldg., Indianapolis	Marion
1438	W. H. Wishard, 723 Hume-Mansur Bldg., Indianapolis	Marion
1439	Wm. F. Clevenger, Newton Claypool Bldg., Indianapolis	Marion
1440	Goethe Link, K. of P. Bldg., Indianapolis	Marion
1441	Alfred Henry, Board of Trade Bldg., Indianapolis	Marion
1442	Frank W. Foxworthy, Board of Trade Bldg., Indianapolis	Marion
1443	T. Victor Keene, Newton Claypool Bldg., Indianapolis	Marion
1444	S. P. Scherer, 513 N. Delaware St., Indianapolis	Marion
1445	O. C. Lukenbill, 2219 E. Washington St., Indianapolis	Marion
1446	M. Joseph Barry, 857 W. New York St., Indianapolis	Marion
1447	Geo. D. Miller, Logansport	Cass
1448	H. C. Johnson, Logansport	Cass
1449	Chas. H. McCully, Logansport	Cass
1450	J. Rubsam, Logansport	Cass
1451	H. B. Hill, Logansport	Cass
1452	J. H. Reed, Logansport	Cass
1453	Robert Hessler, Logansport	Cass
1454	J. C. Bradfield, Logansport	Cass
1455	J. C. Davis, Logansport	Cass
1456	R. E. Troutmann, Logansport	Cass
1457	J. Z. Powell, Logansport	Cass
1458	Earl Palmer, Logansport	Cass
1459	Mary Widdop, Logansport	Cass
1460	F. W. Terflinger, Logansport	Cass
1461	L. C. Miller, Twelve Mile	Cass
1462	C. C. Campbell, Walton	Cass
1463	Chas. D. Carpenter, Walton	Cass
1464	A. W. Tucker, Logansport	Cass
1465	J. L. Gilbert, Logansport	Cass
1466	Clark Rogers, Logansport	Cass
1467	C. L. Thomas, Logansport	Cass
1468	J. H. Barnfield, Logansport	Cass
1469	C. A. Ballard, Logansport	Cass
1470	A. L. Palmer, Logansport	Cass
1471	N. W. Cady, Logansport	Cass
1472	H. H. Miller, Galveston	Cass
1473	Z. U. Loop, Galveston	Cass
1474	F. Cornell, Galveston	Cass
1475	J. A. Little, Logansport	Cass
1476	J. B. Shultz, Logansport	Cass
1477	J. P. Hetherington, Logansport	Cass
1478	F. A. Busjahn, Logansport	Cass
1479	F. J. Hermann, Logansport	Cass
1480	W. A. Holloway, Logansport	Cass
1481	R. P. White, Ft. Wayne	Allen
1482	Ralph Bolman, Ft. Wayne	Allen
1483	C. H. English, Ft. Wayne	Allen
1484	D. E. Kauffman, Monroeville	Allen
1485	K. K. Wheelock, Ft. Wayne	Allen
1486	C. B. Stemen, Ft. Wayne	Allen
1487	M. I. Rosenthal, Ft. Wayne	Allen
1488	W. W. Carey, Ft. Wayne	Allen
1489	M. F. Porter, Jt., Ft. Wayne	Allen
1490	W. P. Whery, Ft. Wayne	Allen
1491	George J. Studer, Ft. Wayne	Allen
1492	T. C. Hood, Willoughby Bldg., Indianapolis	Marion
1493	F. V. Overman, Willoughby Bldg., Indianapolis	Marion
1494	John B. Long, 760 W. New York St., Indianapolis	Marion
1495	E. F. Hodges, 2 W. New York St., Indianapolis	Marion
1496	Edgar F. Kiser, 120 E. 22d St., Indianapolis	Marion
1497	Geo. R. Hays, 104½ W. 16th St., Indianapolis	Marion
1498	J. D. Moschelle, 532 Newton Claypool Bldg., Indianapolis	Marion
1499	Luther Ratliff, Lawrence, Ind.	Marion
1500	Chas. P. Emerson, Indiana Med. College, Indianapolis	Marion
1501	Edmund D. Clark, Hume-Mansur Bldg., Indianapolis	Marion
1502	Frank B. Wynn, Newton Claypool Bldg., Indianapolis	Marion
1503	D. A. Anderson, Newton Claypool Bldg., Indianapolis	Marion
1504	J. C. Alexander, Newton Claypool Bldg., Indianapolis	Marion
1505	C. R. Strickland, Pennway Bldg., Indianapolis	Marion
1506	J. L. Masters, 320 N. Meridian St., Indianapolis,	Marion
1507	F. C. Klein, 911 Virginia Ave., Indianapolis	Marion
1508	Martha J. Smith, The Alexandria, Indianapolis	Marion
1509	G. F. Edenharter, Central Hosp. for Insane, Indianapolis	Marion
1510	Sarah Stocton, Central Hosp. for Insane, Indianapolis	Marion
1511	Max A. Bahr, Central Hosp. for Insane, Indianapolis	Marion
1512	E. W. Burris, 731 King Ave., Indianapolis	Marion
1513	J. E. Hughes, 950 S. Meridian St., Indianapolis	Marion
1514	Chas. A. Pfafflin, Newton Claypool Bldg., Indianapolis	Marion
1515	R. M. Stormont, Stewartsville	Posey
1516	Charles Arburn, Wadesville	Posey
1517	A. L. Woods, Poseyville	Posey
1518	A. G. Schlieker, East Chicago	Lake
1519	John Stawicki, Indiana Harbor	Lake
1520	A. Hofmann, Hammond	Lake
1521	Wm. V. Gooder, Lowell	Lake
1522	L. M. Friedrich, Hobart	Lake
1523	Wm. F. Hauk, Crown Point	Lake
1524	G. D. Brannon, Crown Point	Lake
1525	James H. Walker, Henryville	Clark
1526	Joseph F. Gobbel, Birdseye	Dubois
1527	Albertus Jeffers, Birdseye	Dubois
1528	N. L. Medcalf, Lamar	Spencer
1529	Wm. S.: Beck, Lombard Bldg., Indianapolis	Marion
1530	J. N. Hurty, State Board of Health, Indianapolis	Marion
1531	Luella M. Schneck, 320 N. Meridian St., Indianapolis	Marion
1532	J. L. Freeland, City Hospital Indianapolis	Marion
1533	T. B. Eastman, Pennway, Indianapolis	Marion
1534	Thos. J. Dugan, 2538 W. Washington St., Indianapolis	Marion
1535	D. W. Fosler, Willoughby Bldg., Indianapolis	Marion
1536	Walter N. Sharp, Hume-Mansur Bldg., Indianapolis	Marion
1537	Hannah M. Graham, Marion Bldg., Indianapolis	Marion
1538	Henry S. Leonard, 1908 Ashland Ave., Indianapolis	Marion

No.	Name and Address	County Society
1539	Francis O. Dorsey, Newton Claypool Bldg., Indianapolis	Marion
1540	M. O. Devaney, Board of Trade Bldg., Indianapolis	Marion
1541	C. E. Stephenson, 1715 Prospect St., Indianapolis	Marion
1542	L. B. Bitz, Evansville	Vanderburgh
1543	Geo. P. Hodson, Evansville	Vanderburgh
1544	J. N. Jerome, Evansville	Vanderburgh
1545	V. C. Patten, Morristown	Shelby
1546	M. M. Wells, Fairland	Shelby
1547	W. H. Gilbert, Evansville	Vanderburgh
1548	W. A. Hunt, Evansville	Vanderburgh
1549	J. W. Clifford, Worthington	Greene
1550	Harry B. Williams, Mace	Montgomery
1551	C. H. Walden, New Market	Montgomery
1552	Karl T. Brown, 651 E. 32nd St., Indianapolis	Montgomery
1553	Geo. P. Ramsey, Crawfordsville	Montgomery
1554	J. E. McArdle, Ft. Wayne	Allen
1555	C. F. Kaadt, Ft. Wayne	Allen
1556	J. R. Jenkins, Hammond	Lake
1557	Harry J. Lans, Crown Point	Lake
1558	A. A. Ross, East Chicago	Lake
1559	C. W. Packard, Gary	Lake
1560	I. J. Propper, Gary	Lake
1561	Dwight Mackey, Hobart	Lake
1562	R. Ansley, Indiana Harbor	Lake
1563	J. A. Clevenger, Garrett	Dekalb
1564	C. S. Stewart, Auburn	Dekalb
1565	Chas. Wyeth, Terre Haute	Vigo
1566	A. G. Porter, Terre Haute	Vigo
1567	S. J. Young, Terre Haute	Vigo
1568	C. H. Edwards, Terre Haute	Vigo
1569	V. A. Shanklin, Terre Haute	Vigo
1570	L. P. Luckett, Terre Haute	Vigo
1571	M. H. Kutch, Terre Haute	Vigo
1572	J. C. Bohn, Terre Haute	Vigo
1573	S. C. Darroch, Cayuga	Vigo
1574	W. P. Darroch, Cayuga	Vigo
1575	W. E. Bell, Terre Haute	Vigo
1576	J. H. Hewitt, Terre Haute	Vigo
1577	B. M. Hutchings, Terre Haute	Vigo
1578	R. H. Leavitt, Terre Haute	Vigo
1579	W. R. Mattox, Terre Haute	Vigo
1580	C. B. Crumpacker, South Bend	St. Joseph
1581	J. R. Pearson, Bedford	Lawrence
1582	Frank Broughton, Waterloo	Dekalb
1583	L. S. Wallace, Bunker Hill	Miami
1584	J. E. Moser, Stanford	Monroe
1585	Fred Batman, Bloomington	Monroe
1586	Leon Whetsell, Bloomington	Monroe
1587	G. F. Holland, Bloomington	Monroe
1588	R. D. Smith, Bloomington	Monroe
1589	D. A. McCleary, Deer Creek	Carroll
1590	F. M. Reynolds, Montpelier	Blackford
1591	W. E. Thornton, Montpelier	Blackford
1592	G. H. Dando, Montpelier	Blackford
1593	H. C. Davisson, Hartford City	Blackford
1594	J. H. D. Lorimor, Hartford City	Blackford
1595	J. C. Kirkpatrick, Roll	Blackford
1596	C. A. Sellers, Hartford City	Blackford
1597	Samuel Hollis, Hartford City	Blackford
1598	C. W. Corey, Hartford City	Blackford
1599	W. A. Hollis, Hartford City	Blackford
1600	J. A. Taylor, Montpelier	Blackford
1601	John R. Harrold, Roll	Blackford
1602	M. M. Clapper, Hartford City	Blackford
1603	C. Q. Shull, Montpelier	Blackford
1604	Doris Meister, Anderson	Madison
1605	T. O. Armfield, Elwood	Madison
1606	Francis White, Summitville	Madison
1607	J. W. White, Summitville	Madison
1608	H. E. Jones, Anderson	Madison
1609	C. P. Runyan, Elwood	Madison
1610	J. B. Fattic, Anderson	Madison
1611	M. A. Austin, Anderson	Madison
1612	H. L. Iddings, Merrillville	Lake
1613	C. A. DeLong, Gary	Lake
1614	W. F. Howat, Hammond	Lake
1615	F. J. McMichael, Tolleston	Lake
1616	H. M. Hosmer, Gary	Lake
1617	C. A. Boardman, Gary	Lake
1618	F. W. Merritt, Gary	Lake
1619	J. E. Metcalfe, Gary	Lake
1620	G. E. Miller, Hammond	Lake
1621	T. W. Kohr, Hammond	Lake
1622	E. M. Shanklin, Hammond	Lake
1623	W. A. Buchanan, Hammond	Lake
1624	W. D. Weis, Hammond	Lake
1625	J. W. Iddings, Lowell	Lake
1626	J. C. Gibbs, Crown Point	Lake
1627	R. O. Ostrowski, Hammond	Lake
1628	E. E. Evans, Gary	Lake
1629	E. R. Gordon, Hobart	Lake
1630	Geo. Orf, Indiana Harbor	Lake
1631	A. J. Lauer, Whiting	Lake
1632	A. A. Young, Hammond	Lake
1633	C. W. Campbell, Hammond	Lake
1634	F. H. Fox, Hammond	Lake
1635	W. A. Weiser, Indiana Harbor	Lake
1636	H. G. Merz, Hammond	Lake
1637	T. W. Oberlin, Hammond	Lake
1638	H. E. Sharrer, Hammond	Lake
1639	H. J. White, Hammond	Lake
1640	W. P. Alexander, Gary	Lake
1641	F. W. Smith, Gary	Lake
1642	Eleanor Seull, Hammond	Lake
1643	G. H. Hoskins, Whiting	Lake
1644	W. C. E. Greenwald, Indiana Harbor	Lake
1645	W. E. Putnam, Whiting	Lake
1646	J. A. Teegarden, Indiana Harbor	Lake
1647	E. L. Schaible, Gary	Lake
1648	T. J. Toner, Gary	Lake
1649	M. S. Hopper, Gary	Lake
1650	G. S. Greene, Gary	Lake
1651	I. S. Millstone, Gary	Lake
1652	W. P. Lane, Gary	Lake
1653	Franklin Petry, Tolleston	Lake
1654	L. H. Kelly, Hammond	Lake
1655	N. S. Lindquist, South Bend	St. Joseph
1656	Ralph S. Chappell, Traction Terminal Bldg., Indianapolis	Marion
1657	E. B. Mumford, Newton Claypool Bldg., Indianapolis	Marion
1658	R. O. McAlexander, 320 N. Meridian St., Indianapolis	Marion
1659	O. N. Torian, Hume-Mansur Bldg., Indianapolis	Marion
1660	Albert M. Cole, Hume-Mansur Bldg., Indianapolis	Marion
1661	L. M. Rowe, 538 N. Penn. St., Indianapolis	Marion
1662	Geo. J. Cook, Hume-Mansur Bldg., Indianapolis	Marion
1663	John F. Barnhill, Pennway Bldg., Indianapolis	Marion
1664	Wm. L. Jennings, Bridgeport	Marion
1665	A. S. Ayers, Newton Claypool Bldg., Indianapolis	Marion
1666	Loren Hoover, Decker	Knox
1667	J. S. Hinkle, Bicknell	Knox
1668	W. E. Kessinger, Bicknell	Knox
1669	W. P. Boal, Bicknell	Knox
1670	P. H. Caney, Vincennes	Knox
1671	C. W. Benham, Vincennes	Knox
1672	N. E. Beckes, Vincennes	Knox
1673	Silas Hall, Vincennes	Knox
1674	J. P. Ramsay, Vincennes	Knox
1675	H. W. Held, Vincennes	Knox
1676	E. F. Small, Decker	Knox
1677	J. D. McDowell, Vincennes	Knox
1678	M. M. McDowell, Vincennes	Knox
1679	S. A. Prather, Vincennes	Knox

No.	Name and Address	County Society
1680	Jos. F. Somes, Vincennes	Knox
1681	Thos. H. Maxedon, Vincennes	Knox
1682	A. W. Myers, Monroe City	Knox
1683	J. A. Scudder, Edwardsport	Knox
1684	J. L. Reeve, Edwardsport	Knox
1685	Royse Davis, Decker	Knox
1686	Chas. S. Bryan, Vincennes	Knox
1687	E. N. Johnson, Sanborn	Knox
1688	A. B. Knapp, Vincennes	Knox
1689	C. L. Boyd, Vincennes	Knox
1690	J. G. Jones, Vincennes	Knox
1691	J. N. McCoy, Vincennes	Knox
1692	J. W. Smadel, Vincennes	Knox
1693	J. A. Swartzel, Indianapolis	Knox
1694	L. J. Downey, Vincennes	Knox
1695	E. H. Frigge, Vincennes	Knox
1696	B. B. Griffith, Vincennes	Knox
1697	T. M. Staley, Bicknell	Knox
1698	L. B. Staley, Bicknell	Knox
1699	C. E. Stewart, Vincennes	Knox
1700	S. C. Beard, Vincennes	Knox
1701	H. D. McCormick, Vincennes	Knox
1702	Eugene Bowers, Vincennes	Knox
1703	T. J. McGowen, Vincennes	Knox
1704	E. H. Tade, Wheatland	Knox
1705	Chas. C. McFarlin, Zenas	Jennings
1706	W. H. Stemm, North Vernon	Jennings
1707	W. H. Richardson, North Vernon	Jennings
1708	D. W. Robertson, Deputy	Jennings
1709	S. D. Adams, Brewersville	Jennings
1710	O. Gaddy, Paris Crossing	Jennings
1711	Wm. A. Wildman, Butlerville R.R. 1	Jennings
1712	Wm. W. Case, Zenas	Jennings
1713	M. F. Daubenheyer, Butlerville	Jennings
1714	W. L. Grossman, North Vernon	Jennings
1715	L. M. Davis, Hayden	Jennings
1716	E. H. Brubaker, Flora	Carroll
1717	Clara Faulkner, Hobart	Lake
1718	J. A. Craig, Gary	Lake
1719	F. W. Sauer, Indiana Harbor	Lake
1720	Lloyd G. Campbell, Marion	Grant
1721	W. O. Jenkins, Terre Haute	Vigo
1722	D. L. Phipps, Whiteland	Johnson
1723	S. J. Copeland, 1702 Lexington Ave., Indianapolis	Marion
1724	L. C. Cline, Willoughby Bldg., Indianapolis	Marion
1725	Geo. S. Row, 401 N. Penn. St., Indianapolis	Marion
1726	Louis Burckhardt, Hume-Mansur Bldg., Indianapolis	Marion
1727	R. G. Hendricks, 217 N. Illinois St., Indianapolis	Marion
1728	John Kolmer, Board of Trade Bldg., Indianapolis	Marion
1729	L. A. E. Storch, 1342 S. Meridian St., Indianapolis	Marion
1730	W. P. Garshwiler, Newton Claypool Bldg., Indianapolis	Marion
1731	Geo. B. Morris, Petroleum	Wells
1732	E. L. Dewey, Whiting	Lake
1733	B. U. Doolittle, Whiting	Lake
1734	Ira Miltimore, Gary	Lake
1735	H. S. McBeth, Ft. Wayne	Allen
1736	Bertha Goba, Ft. Wayne	Allen
1737	T. L. Taylor, Ft. Wayne	Lake
1738	C. G. Beall, Ft. Wayne	Allen
1739	A. E. Fauve, Ft. Wayne	Allen
1740	J. M. Pulliam, Ft. Wayne	Allen
1741	J. D. Morgan, Ft. Wayne	Allen
1742	E. E. Parker, Culver	Marshall
1743	R. C. Stephens, Plymouth	Marshall
1744	S. C. Loring, Plymouth	Marshall
1745	W. J. White, Gary	Lake
1746	Antonio Giorgi, Gary	Lake
1747	G. W. Crapo, Terre Haute	Vigo
1748	F. W. Shaley, Terre Haute	Vigo
1749	Ott Casey, Terre Haute	Vigo
1750	E. L. Mattox, Terre Haute	Vigo
1751	B. V. Caffee, Terre Haute	Vigo
1752	E. M. Deputy, Dugger	Sullivan
1753	C. M. Lowder, Dugger	Sullivan
1754	C. R. Walters, Paxton	Sullivan
1755	J. B. Maple, Shelburn	Sullivan
1756	Geo. W. Pirtle, Carlisle	Sullivan
1757	Joseph Freeman, Sullivan	Sullivan
1758	Raphael T. Thralls, Hymera	Sullivan
1759	C. U. Thralls, Hymera	Sullivan
1760	Ira J. Gill, Dugger	Sullivan
1761	John J. Parker, Merom	Sullivan
1762	C. W. Asbury, Hymera	Sullivan
1763	Chas. E. Whipps, Carlisle	Sullivan
1764	James Miles, Merom	Sullivan
1765	O. O. Parker, Graysville	Sullivan
1766	J. B. Young, Worthington	Greene
1767	W. Eberhardt, Michigan City	LaPorte
1768	M. S. Smith, LaPorte	LaPorte
1769	E. B. Malone, Columbus, Montana	LaPorte
1770	A. B. Lockridge, Rockville	Parke
1771	C. W. Overpeck, Rockville	Parke
1772	A. A. Williamson, Marshall	Parke
1773	C. S. White, Rosedale	Parke
1774	W. H. Gillum, Rockville	Parke
1775	A. Martin, Bellmore	Parke
1776	C. A. Caplinger, Wallace	Parke
1777	H. C. Rogers, Rockville	Parke
1778	F. L. Resler, Peru	Miami
1779	O. C. Wainscott, Peru	Miami
1780	F. M. Lynn, Peru	Miami
1781	S. R. Laubscher, Evansville	Vanderburg
1782	S. K. Ingle, Evansville	Vanderburg
1783	Wm. Fritsch, Evansville	Vanderburg
1784	A. E. Burkhardt, Tipton	Tipton
1785	I. N. Myers, Maples	Allen
1786	K. C. Evans, Payne, Ohio	Allen
1787	F. A. Tucker, Noblesville	Hamilton
1788	J. A. Axline, Noblesville	Hamilton
1789	W. B. Graham, Noblesville	Hamilton
1790	Z. H. Fodrea, Westfield	Hamilton
1791	E. A. Rainy, Jolietville	Hamilton
1792	H. H. Thompson, Noblesville	Hamilton
1793	A. R. Tucker, Noblesville	Hamilton
1794	E. E. Wishard, Noblesville	Hamilton
1795	E. M. Young, Sheridan	Hamilton
1796	T. O. Redden, Jolietville	Hamilton
1797	J. L. Hicks, Arcadia	Hamilton
1798	P. S. Johnson, Sheridan	Hamilton
1799	L. F. Bills, Atlanta	Hamilton
1800	A. A. Bond, Westfield	Hamilton
1801	M. C. Haworth, Noblesville	Hamilton
1802	O. B. Pettijohn, Noblesville	Hamilton
1803	C. Harman, Noblesville	Hamilton
1804	J. D. Sturdevant, Noblesville	Hamilton
1805	J. E. Hanna, Noblesville	Hamilton
1806	J. W. Huffman, Poland	Clay
1807	G. M. Pell, Carbon	Clay
1808	M. H. Young, Harmony	Clay
1809	G. W. Finley, Brazil	Clay
1810	Felix G. Thornton, Knightsville	Clay
1811	H. J. Pierce, Cloverland	Clay
1812	S. G. Hollingsworth, Brazil	Clay
1813	L. L. Williams, Brazil	Clay
1814	Geo. C. Boyer, Brazil	Clay
1815	H. L. Muncie, Brazil R.F.D. No. 2	Clay
1816	P. J. Veach, Staunton	Clay
1817	J. A. Rawley, Brazil	Clay
1818	H. R. Vandivier, Clay City	Clay
1819	W. H. Orr, Brazil	Clay
1820	Wm. Palm, Harmony	Clay
1821	J. Lambert, Brazil	Clay
1822	L. S. Hirt, Brazil	Clay
1823	Gilbert Finch, Center Point	Clay
1824	J. F. Smith, Brazil	Clay
1825	J. D. Sourwine, Brazil	Clay

No.	Name and Address	County Society
1826	C. C. Sourwine, Brazil	Clay
1827	F. C. Dilley, Brazil	Clay
1828	Harry Elliott, Brazil	Clay
1829	D. H. Swan, Haubstadt	Gibson
1830	G. B. Beresford, Owensville	Gibson
1831	J. L. Morris, Princeton R. R. No. 5	Gibson
1832	H. M. Arthur, Hazleton	Gibson
1833	M. L. Arthur, Francisco	Gibson
1834	V. H. Marchand, Haubstadt	Gibson
1835	H. L. Bass, Ft. Branch	Gibson
1836	J. R. Montgomery, Owensville	Gibson
1837	M. A. Montgomery, Owensville	Gibson
1838	W. F. Morris, Ft. Branch	Gibson
1839	J. W. McGowan, Oakland City	Gibson
1840	F. H. Maxam, Princeton	Gibson
1841	A. L. Ziliak, Princeton	Gibson
1842	W. H. Smith, Oakland City	Gibson
1843	F. M. Martin, Griffin	Gibson
1844	S. I. Arthur, Patoka	Gibson
1845	Chas. A. Miller, Princeton	Gibson
1846	W. W. Blair, Princeton	Gibson
1847	A. H. Rhodes, Princeton	Gibson
1848	R. S. Mason, Oakland City	Gibson
1849	W. D. Levi, New Albany	Clark
1850	J. R. Lewis, 225½ S. Noble St., Indianapolis	Marion
1851	L. O. Carson, New Augusta	Marion
1852	F. C. Heath, Newton Claypool Bldg., Indianapolis	Marion
1853	J. F. Robertson, 2313 E. Michigan St., Indianapolis	Marion
1854	Bernard Erdman, Newton Claypool Bldg., Indianapolis	Marion
1855	Harry H. Heinrichs, 760 Massachusetts Ave., Indianapolis	Marion
1856	Geo. R. Christain, 1449 Prospect St., Indianapolis	Marion
1857	Harriet E. Turner, 406 N. Alabama St., Indianapolis	Marion
1858	W. L. Wilson, Scipio	Jennings
1859	D. W. Mathews, Commiskey	Jennings
1860	R. J. McKeand, Lexington	Jefferson
1861	E. V. Green, Martinsville	Morgan
1862	Robert Egbert, Martinsville	Morgan
1863	Frank R. Maxwell, Martinsville	Morgan
1864	O. A. Sweet, Martinsville	Morgan
1865	E. M. Sweet, Martinsville	Morgan
1866	F. C. Robinson, Martinsville	Morgan
1867	Geo. B. Breedlove, Martinsville	Morgan
1868	W. J. Sandy, Martinsville	Morgan
1869	H. Dutton, Paragon	Morgan
1870	James H. Black, Lebanon	Boone
1871	W. H. Williams, Lebanon	Boone
1872	Herma Beck, Lebanon	Boone
1873	John F. Brendel, Zionsville	Boone
1874	De Laskie Smith, Lebanon	Boone
1875	H. Boyd-Snee, South Bend	St. Joseph
1876	J. E. Elliott, Terre Haute	Vigo
1877	D. B. Miller, Terre Haute	Vigo
1878	T. C. Louks, Terre Haute	Vigo
1879	D. H. Forsythe, Terre Haute	Vigo
1880	Earl Conover, Evansville	Vanderburg
1881	E. J. VerWayne, Evansville	Vanderburg
1882	Henry W. Bopp, Palmyra	Harrison
1883	John Nixon, Farmland	Randolph
1884	A. L. Marshall, Deaconess Hosp., Indianapolis	Marion
1885	J. A. Pfaff, Newton Claypool Bldg., Indianapolis	Marion
1886	Floyd N. Shipp, Newton Claypool Bldg., Indianapolis	Marion
1887	O. C. Neier, 5402 E. Washington St., Indianapolis	Marion
1888	J. M. Phipps, Deering, Mo.	Marion
1889	Ross M. Reagan, Monon	White
1890	W. A. Spencer, Wolcott	White
1891	A. J. Blickenstaff, Wolcott	White
1892	M. T. Didlake, Monticello	White
1893	Guy R. Coffin, Monticello	White
1894	H. B. Gable, Monticello	White
1895	Walter McBeth, Burnettsville	White
1896	H. R. Minnick, Idaville	White
1897	Grant Goodwin, Monticello	White
1898	J. P. Galbreath, Burnettsville	White
1899	N. D. Berry, Muncie	Delaware
1900	W. A. Lisman, Carlisle	Sullivan
1901	S. B. Coulson, Hymera	Sullivan
1902	J. W. Lisman, New Lebanon	Sullivan
1903	E. Franz, Berne	Adams
1904	J. W. Vizard, Pleasant Mills	Adams
1905	J. C. Grandstaff, Preble	Adams
1906	F. G. Keller, Alexandria	Madison
1907	H. W. Gante, Anderson	Madison
1908	R. C. Peare, Bellmore	Parke
1909	R. E. Swope, Rockville	Parke
1910	D. W. Ross, LaPorte	LaPorte
1911	R. T. Olmsted, Versailles	Ripley
1912	T. E. Hunter, Versailles	Ripley
1913	J. W. McClure, Milan	Ripley
1914	C. E. Holton, Holton	Ripley
1915	Geo. Beckett, Versailles	Ripley
1916	E. D. Freeman, Osgood	Ripley
1917	R. S. Wood, Osgood	Ripley
1918	F. F. Kremer, St. Magdaline	Ripley
1919	Chas. W. Gibson, Batesville	Ripley
1920	C. D. Ryan, Cross Plains	Ripley
1921	L. T. Cox, Napoleon	Ripley
1922	J. N. Hess, New Marion	Ripley
1923	T. H. Payne, Delaware	Ripley
1924	R. C. Townsend, Osgood	Ripley
1925	H. G. Nelson, Osgood	Ripley
1926	Clyde Carmichael, Seelyville	Vigo
1927	W. B. Hunt, Youngstown	Vigo
1928	E. P. Wagner, South Bend	St. Joseph
1929	C. E. Boyd, West Baden	Orange
1930	H. L. Miller, West Baden	Orange
1931	W. W. Sloan, French Lick	Orange
1932	J. R. Dillinger, French Lick	Orange
1933	C. P. Davis, Galena	Floyd
1934	A. G. Kinberger, Galena	Floyd
1935	W. J. Leach, New Albany	Floyd
1936	R. K. Brown, New Albany	Floyd
1937	Chas. W. McIntyre, New Albany	Floyd
1938	E. L. Sigmon, New Albany	Floyd
1939	R. S. Rutherford, New Albany	Floyd
1940	C. P. Cook, New Albany	Floyd
1941	W. L. Starr, New Albany	Floyd
1942	John Hazlewood, New Albany	Floyd
1943	E. P. Easley, New Albany	Floyd
1944	J. F. Weathers, New Albany	Floyd
1945	C. C. Funk, New Albany	Floyd
1946	H. B. Shacklett, New Albany	Floyd
1947	J. E. Bird, New Albany	Floyd
1948	F. H. Wilcox, New Albany	Floyd
1949	Wm. Moore, New Albany	Floyd
1950	F. W. Hazlewood, New Albany	Floyd
1951	J. W. Baxter, New Albany	Floyd
1952	W. C. Winstandley, New Albany	Floyd
1953	G. D. Baker, New Albany	Floyd
1954	A. I. McKamy, New Albany	Floyd
1955	G. W. Miller, East Chicago	Lake
1956	J. A. Graham, Hammond	Lake
1957	E. A. Gilson, Hammond	Lake
1958	H. C. Groman, Hammond	Lake
1959	Frederick Nussel, Brazil	Clay
1960	P. L. Mull, Oldenburg	Franklin
1961	E. M. Glaser, Brooklyn	Franklin
1962	D. R. Ivey, Royal Center	Cass
1963	F. M. Kistler, Royal Center	Cass
1964	W. L. Hughes, Indiana Harbor	Lake
1965	Raleigh P. Hale, East Chicago	Lake
1966	O. C. Wicks, Gary	Lake
1967	H. A. Hutcheson, 2206 E. Washington St., Indianapolis	Marion

No.	Name and Address	County Society
1968	O. W. Ridgeway, 1726 E. Washington St., Indianapolis	Marion
1969	E. J. DuBois, City Board of Health, Indianapolis	Marion
1970	W. F. Hughes, Newton Claypool Bldg., Indianapolis	Marion
1971	Chas. Perry, Lewis Creek	Shelby
1972	D. A. Pettigrew, Flat Rock	Shelby
1973	S. L. Strickler, Boggstown	Shelby
1974	James M. Atkinson, Eaton	Delaware
1975	L. L. Mattox, Geneva	Adams
1976	E. B. McAllister, Terre Haute	Vigo
1977	I. M. Casebeer, Newport	Vigo
1978	W. H. Taylor, Ambia	Benton
1979	Clark Cook, Fowler	Benton
1980	D. E. Mavity, Fowler	Benton
1981	A. LeSage, Fowler	Benton
1982	J. R. Hicks, Covington	Fountain-Warren
1983	H. N. McKee, 2012 Broadway, Indianapolis	Fountain-Warren
1984	R. F. Bannister, Paris Crossing	Jennings
1985	W. J. Mitchell, No. Vernon	Jennings
1986	John H. Green, No. Vernon	Jennings
1987	D. L. McAuliffe, No. Vernon	Jennings

THE INDIANA STATE MEDICAL ASSOCIATION

THE COUNCIL

The regular mid-winter meeting of the Council of the Indiana State Medical Association was held at Indianapolis on Wednesday, January 24, 1912. The meeting was called to order by the chairman, Dr. W. N. Wishard. The following members responded to roll call: A. F. Knoefel, Linton; W. H. Stemm, North Vernon; J. H. Weinstein, Terre Haute; C. S. Hougland, Milroy; W. N. Wishard, Indianapolis; G. W. H. Kemper, Muncie; W. H. Williams, Lebanon; Geo. R. Osborn, LaPorte; G. G. Eckhart, Marion; C. A. Daugherty, South Bend; W. F. Howat, Hammond; C. N. Combs, Terre Haute.

The minutes of the annual meeting were read and approved. The resolution of Dr. Knoefel, after its discussion, was withdrawn and the chairman appointed a committee composed of Drs. Knoefel, Kemper, Daugherty and Howat to draft a suitable resolution concerning elections, to be presented at the next meeting of the Council, after the address of the retiring president had been delivered at the next annual session at Indianapolis. Dr. Daugherty presented a report of the committee appointed at the last mid-winter meeting to prepare a statement concerning the contract for publishing The Journal. The report was accepted and approved, ordered published as a part of these minutes and further to be read at the next meeting of the House of Delegates. The report is as follows:

History of the Establishment of the Journal of the Indiana State Medical Association

For several years previous to the year 1907 there had been a very general demand for a State Medical Journal which would represent the state organization and reflect the views of the profession of the state, publish papers read at the State Association sessions, brief reports from the various county societies, editorials on live topics, and such news items as might be of interest to the profession of the state.

Upon investigation the Council found that the cost of the bound transactions of the Indiana State Medical Association had cost approximately seventy-five cents for each member of the Association. Accordingly, as a medical journal was to supplant the transactions as heretofore published, and as the dues at that time were only one dollar per member, it was decided by the Council, at a meeting held Oct. 15, 1907, to establish a state medical journal and that seventy-five cents from the dues of each member of the Association should be used for the establishment of such journal.

Upon inspection of several medical journals, all having a different size page, it was decided that the journal to be established should be approximately of the size of the association journals of Kentucky, Texas, or California, or when trimmed to be 8x11, with a two-column printed page 6x9.

It was estimated that a journal with the size page decided upon, and each number containing 25 to 28 pages of pure reading matter, would be large enough to publish all of the transactions of the Association, including the list of members, obituaries, and the county medical society directory. With the addition of 10 or 15 pages, such a journal could also publish editorials, news notes, county society reports, abstracts and other items such as are usually found in the progressive and up-to-date medical journals. It was also pointed out that such a journal could print all of the announcements of the Association, including the preliminary program for the annual sessions, and that this alone would be a great saving in printing and postage.

Estimates were submitted showing that the total cost of publishing a journal of from 36 to 40 pages of the size decided upon would amount to approximately $4,500, not including any honorarium for the editor, and the expense would be proportionately greater with an increase in the number of pages.

The concensus of opinion among the members of the Council was, that inasmuch as the Association had no capital and no credit to offer publishers, and the establishment of a journal was in a measure an experiment, no financial responsibility should be incurred in an attempt to establish a journal for the Association, inasmuch as the avoidance of a deficit would depend on the ability of the editor or manager to secure at least $3,000 worth of advertising, which latter was considered an undertaking apt to prove disappointing. Furthermore, the Association would be under further obligation to offer a salary to an editor and manager as compensation for valuable services rendered, and this would only add to the expense of the undertaking.

Dr. Bulson, the editor and manager of the *Fort Wayne Medical Journal*, who had had twelve years' experience in editing and publishing a medical journal, was asked for suggestions, and as to the terms under which he would consent to undertake the editing, managing and publication of a journal for the Association. After due consideration he made the Council the following proposition:

1. As editor and manager he would personally assume financial responsibility for the publication of a monthly journal, to be known as The Journal of the Indiana State Medical Association, each number to contain not less than 48 pages, including advertising, of which not less than 36 shall be pure reading matter; the size of the trimmed page to be 8x11, and the printed page 6x9; each issue to contain enough copies to supply the members of the Indiana State Medical Association (who shall be subscribers), advertisers, exchanges and libraries; to be printed upon first quality book paper, with 6, 8 and 10 point type, and suitable cover page and headings; providing, that

seventy-five cents from each member of the Indiana State Medical Association be turned over to him as subscriptions to The Journal; that he be privileged to obtain the balance of the cost of publication from advertising, and that any funds remaining after the payment of all legitimate expenses of publication be retained as an honorarium for services rendered.

2. That the reading pages shall not be devoted in any manner whatsoever to advertising purposes; that no advertising be placed among the reading pages as inserts; that no objectionable advertising shall be accepted for appearance in any copy of The Journal; that a reasonable and uniform rate be charged for advertising space so that no misunderstandings shall occur in consequence of unfair discrimination; and that the advertising rates be made to compare favorably with the rates of other state society journals of similar size and circulation; and that no advertisement of a medicinal preparation be accepted for publication in The Journal unless it is a U. S. P. or N. F. preparation, or has been approved by the Council on Pharmacy and Chemistry of the American Medical Association.

3. That the editor shall have the privilege of appointing his own assistant, who shall be a member of the Indiana State Medical Association.

4. That all expenses of publication, including printing, postage, salaries of the assistant editor, stenographers, and other office help, and in fact all expense directly connected with the publication of The Journal shall be paid by the editor, and the Indiana State Medical Association shall be financially under obligation only to the extent of the 75 cents subscription from each member of the Association, and that such sum be placed to the credit of The Journal immediately upon collection of the dues.

5. That The Journal shall publish all of the proceedings of the Indiana State Medical Association, including papers and discussions (typewritten copy to be furnished) and all announcements or notices concerning annual sessions, the payment of dues, etc. It shall also publish the preliminary program of each annual session, and keep a standing directory of the State Association, the district medical societies, and all county medical societies. The Journal shall also publish in full or in abstract the proceedings of any of the component societies of the Indiana State Medical Association if typewritten copy be submitted, and space permits the use of such proceedings.

6. That The Journal shall contain editorial and such other departments as the editor may deem of interest to the medical profession and of value in broadening the sphere of usefulness of The Journal.

7. That The Journal shall at all times be devoted to the interests of the medical profession of Indiana and the Indiana State Medical Association in particular; that it shall editorially reflect a high ethical and moral standard; and that the Council shall at all times have the privilege and right to make the final decision as to the adoption of any policies not outlined in this proposition.

8. That the editor shall receive no salary or honorarium other than that which may remain after the payment of all expenses of publication.

In as much as the Association had no funds on hand, and also as the demand for the immediate establishment of a journal was urgent from every part of the state, Dr. Bulson's proposition seemed to point to a happy solution of the problem. After free discussion, the Council, by a unanimous vote, decided to accept the proposition of Dr. Bulson, and he was elected editor of The Journal, to continue for one year, and yearly thereafter until his successor is elected. He was also given a vote of confidence and assurance of support in all his efforts to make The Journal a success.

Dr. Bulson then advised the Council that the first number of the new periodical would appear on January 15, 1908, and that thereafter The Journal would appear on or about the 15th of each month.

Last year the annual dues of the Indiana State Medical Association were raised from one to two dollars, but the contract with Dr. Bulson remained the same, so that The Journal is still furnished to members at 75 cents per annum. The additional dues were added to enable the Association to create a Medical Defense fund.

After an experience of over four years it can be said that our expectation in the plan adopted, and our confidence in Dr. Bulson as editor have been fully justified. He has given us much more than he promised. We have examined many other state medical journals and so far have found none that will compare favorably with our own. The paper and makeup of The Journal are equally as good as that of *The Journal of the A. M. A.*, its editorials have always been high class, and its advertising pages clean and free from objectionable advertisements. In fact it has been in every respect a high class ethical medical journal, one that every member of the Indiana State Medical Association may well be proud of, and yet Dr. Bulson through his careful business management and self sacrificing spirit is furnishing the profession of Indiana this first-class journal at a lower rate than any similar state journal in the United States is furnished.

The Council, therefore, takes pardonable pride, not only in their decision to establish a state medical journal, but also in their selection of an editor who has so efficiently conducted it, thereby making it possible to realize our high ideals. How long he will be willing to devote his valuable talents and time to this work of pride and love for his profession, we do not know, but we do know that the profession of this state is under lasting obligations for the valuable services he has already rendered.

August Knoefel, Linton,
C. A. Daugherty, South Bend,
Committee.

A motion was carried reaffirming the confidence of the Council in the editor of The Journal, Dr. Albert E. Bulson, Jr., and endorsing the policies he has been pursuing.

A letter from Dr. Bulson, editor of The Journal, was read, explaining that his absence was due to a vacation trip to Cuba. He reported the affairs of The Journal in excellent condition and that he would continue the same policy already established and make The Journal larger and better for 1912. He asked the passage of two resolutions which were finally passed to read as follows:

Resolved, That the Council of the Indiana State Medical Association not only endorses the work of the Council on Pharmacy and Chemistry of the A. M. A., but hereby requests the members of the Indiana State Medical Association to support this work by refusing to prescribe any preparation that has not been approved by the Council on Pharmacy and Chemistry in its list of New and Nonofficial Remedies, and be it further

Resolved, That this Council condemns the policy of those medical journals that carry the advertisements of nostrums and worthless pharmaceutical specialties.

A letter from the Council on Health and Public Instruction of the A. M. A. was read, offering to furnish speakers free of charge for six public meetings to be held in Indiana during the first five months of 1912. A motion was carried to accept this offer and the councilors were asked to report at once to the Secretary available cities for holding these meetings.

The councilors presented the annual reports for the counties in their several districts and the same were filed with the secretary with instructions to have the information tabulated and published in The Journal. A motion was carried recommending and urging all county societies to hold their annual elections in December, of officers to hold through the following calendar year.

The following resolution was adopted unanimously and heartily:

Resolved, That this Council commends the work of Dr. G. W. H. Kemper in compiling and publishing, regardless of labor and expense, his "Medical History of Indiana," and hereby urges the members of the Indiana State Medical Association to purchase copies of this invaluable book.

After re-electing Dr. W. N. Wishard as chairman of the council, the meeting adjourned.

C. N. Combs, Secretary.

INDIANAPOLIS MEDICAL SOCIETY

Meeting of December 19

Meeting called to order by President Kimberlin with eighty-five members present. Minutes of last meeting read and approved. Application of Dr. V. A. Lapenta read for first time.

Motion carried to reconsider action of society at a previous meeting concerning arrangements for state association meeting. Motion carried to postpone discussion until a later meeting.

Dr. F. C. Heath read a paper on the subject "Are Syphilitic Eye Lesions an Indication For or Against the Use of Salvarsan?" A condensed summary of the literature showed that while Finger, Stern and a few others still think that eye troubles occurring after salvarsan are due to the drug, by far the largest number agree with Ehrlich, Wechselman and Benario in regarding them as recurrences of syphilis from the fact that salvarsan has not destroyed all the spirochetes, this position being supported by the experience of some in curing the lesions by more salvarsan, or by mercury and the iodids; by the long time between the injections and appearance of the lesions in most cases; by their not occurring in the hands of those who give the largest doses, of those who use the intravenous method, or those with the largest experience; by their not being found where salvarsan has been used for nonsyphilitic diseases and by the lesions being inflammatory as in syphilis, rather than degenerative, as in those due to atoxyl and other strong arsenical preparations.

Successful results of many oculists and syphilologists at home and abroad, in treating eye lesions with salvarsan, were also reported, particularly brilliant results being obtained in iritis and some other lesions, fair results in interstitial keratitis, and even many good results in paralysis of ocular muscles and optic neuritis; Fordyce regarding choked disc an emergency calling for salvarsan while Oliver and Marshalko even improved some cases of optic atrophy and arrested others. Inquiry of Indianapolis oculists and syphilologists reveals no case of eye lesion to be attributed to salvarsan, while several report good results in treatment of iritis and keratitis. Study of cases in the dispensary of Indiana University School of Medicine gives similar evidence. Dr. Heath thinks that most syphilitic eye lesions are indications for, rather than against, use of salvarsan; optic neuritis, when syphilitic, being an emergency calling for that quick-acting remedy.

As to atrophy, the writer holds that each case should be studied by itself, there being no need of salvarsan if patient is holding his own under the old treatment that being all one could expect from any treatment; but salvarsan forms only hope to case getting worse in spite of mercury, iodids and strychnia, and is much more likely to do good than harm; the danger from the drug being remote, but that from the disease of syphilis imminent and alarming.

Dr. Bernard Erdman reported sixty cases from the dispensary and private work treated with salvarsan. He advocated the recording of a careful physical examination including eye, ear and urinary examinations previous to administration of the drug. Uniformly good results were obtained with salvarsan in all cases. Dr. Erdman advanced the opinion that salvarsan would find its greatest field of usefulness in treatment of early cases.

Dr. Dodds read a paper entitled "Synopsis of Home Treatment of Tuberculosis." The author discussed the different phases of his subject in the following order: Prevention, home management and the results obtained by treatment. The most important of all is prevention The laity knows little about preventing trouble, and usually gives such things little concern. Medical profession has conducted its part of the responsibility to its credit, but still has a great burden to be properly disposed up—that of educating laity to prevent infection. To do this instructions must be given to child along with his reading, writing and arithmetic, for if the world is to be freed from tuberculosis the child will be the highway for such freedom. We have been getting the cart before the horse in our work in the state in that we are caring for the curable incipient case and permitting the hopeless incurable to infect new cases on his long way to the grave. At present the consumptive is excluded from all institutions and has no choice in the matter unless he is financially able to change his conditions. The state should protect the lives of helpless, innocent children from this scourge as vigorously as it would from war and invasion. Prevention can be accomplished by better medical inspection of schools and closer observation of the child's condition. Good food, good hygienic surroundings, proper physical development of the child's life will greatly increase resistance and immunity of future generations to this disease.

Home management of a tuberculous patient presents many difficulties. In incipient cases the problems are those of abundant fresh air, good food and rest. However, the incipient case requires close medical supervision and optimistic encouragement. Most cases become restless and impatient and want to disregard the very things that helped them back to apparent health. It is easy to relapse, and these relapses are the very dangers which an incipient case must religiously avoid if he wishes to make complete recovery. Patient should be taught how to take his temperature and pulse and be furnished with a regular blank upon which to keep the records, which will furnish physician with valuable information. Patient should be taught that as an incipient case he is not dangerous to his family. Home management of advanced or mixed cases requires much

greater care than incipient cases. They are not physically able to look after their own wants and must have almost constant attention. In this kind of a case the family must care for the invalid, as it is almost impossible to get nurses to stay in a home where a patient is bedfast with consumption. This means that the entire family turns nurse, and indeed children are compelled to do most of the work. This is not good sanitary practice, and one or more of these people are going to contract the disease. The consumptive must be made to realize to the utmost that he is a source of danger to his associates unless he observes every precaution for their protection. It requires constant endeavor and persistent determination for a consumptive to live the life necessary to be of no danger to his fellow man. If we wish to stamp out this disease, we must insist that this state, this city, this county, provide suitable institutions for segregation, isolation and treatment of advanced cases of consumption. Until this is done we will continue to treat the same number of tuberculous patients.

No specific treatment for tuberculosis, though good food, fresh air and rest do good. There must be systematic arrangement of every detail if we wish to cure our patients. Medical treatment of tuberculosis corrective and symptomatic in the main, and tonics have their place. Various antiseptics do harm, as they disturb digestion and interfere with assimilation. Must look to artificial immunization for greater help. Koch gave the first idea in vaccine therapy when he introduced tuberculin, which though it has not proven the specific hoped for in the beginning, has an established value and forms one of the best agents in stimulating increased resistance to the disease. Autogenous vaccines from sputum of consumptives has been administered with gratifying results. Possible not only to control the chills, fever and sweats of consumptives but are able to prevent hemorrhage and arrest abscess formation by use of bacterins. Can immunize against la-grippe by use of influenza bacterins for a short time, and repeated doses will carry a patient through recurrent epidemics so common in winter. Good reactions following these injections necessary if beneficial results are to be obtained. Cannot expect anything from immunization if all the machinery for producing antibodies be destroyed. Does not advise vaccines or any curative remedies in far advanced cases. The author drew the following conclusions:

1. Our duty as physicians in treating tuberculosis is to preach a new religion, the salvation of the child from infectious and preventable diseases.

2. That we demand with all our power a suitable place for advanced consumptives to be cared for until they die.

3. That we demand better medical supervision in the schools.

4. That the state is interested in and should be responsible for the protection of children living in tuberculous homes.

5. That children be taught the value of laws governing health before they become victims of disease.

In the discussion, Dr. Hood said that eye complications are frequent in syphilis. Contra-indications of salvarsan have been exaggerated. A specific anti-syphilitic agent should not be contra-indicated in any complication of syphilis. Other conditions than syphilitic complications in the eye may contra-indicate use of salvarsan. Conservatism disappears with experience. Reported three cases.

Dr. Sharp reported two cases of optic atrophy discovered as complications of syphilis. Such cases should have salvarsan as should all other eye complications due to syphilis.

Dr. Hughes has made an effort to determine the contra-indications in the eye to salvarsan. There is improvement in the majority of cases of syphilitic eye disease treated with salvarsan. Any disease of retina or optic nerve due to other causes than syphilis contra-indicates salvarsan.

In closing, Dr. Heath said that he doubted if salvarsan ever affected the vision. In cases of progressive loss of vision salvarsan should always be used.

In closing, Dr. Erdman said that the end-results of the administration of salvarsan have not been determined. The method of administration not important. Mentioned two cases of brain syphilis not benefited by salvarsan.

Adjourned. Homer R. McKinstray, Secretary.

Meeting of January 9

Clinical meeting at City Hospital; called to order at 8:15 by president, with thirty-five members present. Minutes of last meeting read and approved. Report of council recommending the election of Drs. E. Russell Bush and Lillian C. Lowder was accepted. Society voted that the appointment of a staff at the Colored Orphans' Home be referred to the council. Secretary read a letter from Dr. Guido Bell thanking the society for his election to honorary membership.

Case 1.—Dr. Earp. Patient, man aged 40. Family history of tuberculosis. Personal history negative excepting pneumonia seven years ago. Present illness began three weeks previous with a chill, pain in chest, cough and pain in right lumbar region. Examination showed soreness on right side of chest with diminished breath sounds. Temperature continuously high. Blood, urine and sputum examinations negative. Had been some nose bleed. Temperature not reduced by cold packs but declined by lysis. Differential diagnosis discussed. Pneumonia, typhoid and pulmonary tuberculosis considered.

Case 2.—Dr. Kimberlin. Patient, man aged 28. Family history of cancer and asthma. Personal history of grippe three years ago followed by axillary abscess. Present illness began three weeks previous with distension of abdomen followed by pain and tenderness. Temperature subnormal; pulse 68 to 80; urine negative; blood pressure 118. Blood examination showed 5,760,000 reds and 8,000 whites. Sputum showed tubercle bacilli; Von Pirquet positive. Slight loss of weight, no ascites; dulness on left side of abdomen. Diagnosis of tuberculous peritonitis, probably of serous type. Question of treatment discussed. Dr. Kimberlin said that unless the condition proved of the serous type surgical treatment not indicated. Surgery in glandular or plastic types of doubtful benefit.

Cases 3 and 4 presented by Dr. C. F. Neu. First case gave family history of paralysis and nephritis. Personal history of three attacks of paralysis, the first three years previous. Patient complained of right side of body weakness. Examination showed fair movement of arms and legs. Reflexes exaggerated; Babinski positive; ankle-clonus on the left; no atrophy. Wassermann positive. Positive signs enumerated differentiate from hysteria. Diagnosis, syphilitic cerebral endarteritis. Second case, female, suffered injury to back by falling seven years previous. Speech slow and in monotone. Nystagmus present; exaggerated knee-jerk,

ankle-clonus and Babinski on the left. No disturbance in sensation. Question of the presence of a cord lesion eliminated by absence of sensory impairment and atrophy and the presence of spasticity. Ordinary evidences of a meningitis absent. Case probably one of disseminated sclerosis involving the pyramidal tracts although there is no tremor. Cases presented to show differences in similar cases.

Discussion: Dr. T. B. Noble said that tubercular perintonitis simulates a variety of conditions. Diagnosis cannot always be definite. Reported two cases of tabes mesenterica treated surgically followed by recovery. In the plastic type operation often improves the condition. Case reported. A secondary operation for the resulting fistula showed no evidence of tuberculosis. Surgery indicated in all cases of tubercular peritonitis. The serous type most benefited. Pulmonary tuberculosis does not contraindicate surgery.

Dr. Potter reported case of tubercular peritonitis mistaken at operation for carcinoma. Serous type most benefited by operation but other types should be operated. Agreed with Dr. Kimberlin in advocating conservatism in case presented.

Dr. Wynn reported case of tabes mesenterica in an advanced condition which recovered without any surgical procedure. The case presented by Dr. Kimberlin is probably of the plastic type and an exploratory operation should be done.

Adjourned. H. R. McKinstray, Secretary.

Meeting of January 16

Meeting called to order by president with thirty-five members present. Minutes of previous meeting read and approved. The paper of the evening was read by Dr. T. B. Eastman on the subject, "Some Observations on the Various Details in Abdominal Surgery." He said that the art of abdominal surgery has changed in the direction of simplicity. Asepsis is little more than cleanliness. Fortunately the laity is becoming educated to the hospital idea. Nowadays almost every town of any size has what is called a hospital, largely by courtesy. The income of these institutions is small and they are not properly equipped. The writer submits that, having sent ahead an intelligent nurse to make careful preparation for the work, a house operation is to be preferred to one in certain hospitals he has in mind.

It would be well if the general practitioner would begin preparation at least a week before hand where this can be done, not by purging, but by such attention to the bowels as will have them thoroughly evacuated without formation of gas. This is best done by diet and the administration of either castor oil or liquid albolene. It is a mistake to diet a patient too severely. Many a naturally strong patient has been so severely dieted and purged before operation as to be brought to the operating table almost on the verge of collapse.

In the opinion of the writer ether is the ideal anesthetic. Proper administration of ether requires much more skill than that of any other anesthetic. So far as the devices for the administration of ether are concerned, it does not matter much what they are so that they can be used without the withdrawal of the device from the face. The patient is much better off to be well anesthetized in five or six minutes with two or three ounces of ether than to be anesthetized in sixty minutes with a pound of ether.

Ordinary commercial soap is as good as any for washing the hands. Gauze is quite as good as a brush. If the patient be one of cleanly habits the field of operation may be sufficiently sterilized immediately preceding the operation. Either Harrington's solution or tincture of iodin may be used, but it is necessary that the skin be dry before the iodin is applied.

Whenever possible the incision should be large enough to give freest access to the cavity. The writer closes the incision with layers of interrupted sutures; peritoneum with No. 1 plain cat-gut; fascia with No. 1 chromic; and the skin with No. 2 plain cat-gut. Through and through sutures are not used. An abdominal binder is not recommended as it serves no purpose.

For relief of post-operative nausea gastric lavage is used as a routine. After the patient is put to bed little medication is used because in practically all cases the patient's fate is sealed when he leaves the operating table. Patients are allowed to assume any position in bed which they desire. So far as possible bowels are left to themselves and weakening purges avoided.

In opening the discussion Dr. S. J. Hatfield said that ether is the anesthetic of choice. Laxative should be given previous to operation but purging avoided. Small dose of morphin 30 min. before operation makes mental condition of patient better and prevents shock. Atropin at same time prevents excessive bronchial secretion. Field of operation should be cleansed in simple way, and incision large enough to facilitate easy work. Through and through sutures tend to prevent hernia. Closing incision by layers is best method. In obese patients a drain should be introduced above the fascia.

Dr. Bernays Kennedy: Ether anesthetic of choice. Nitrous oxid as a preliminary is ideal. Morphin and atropin have a good effect. When possible patient should be anesthetized in bed before removal to operating room. In smaller hospitals flies are frequently a source of danger. Simple cleansing best preparation.

Dr. J. A. Pfaff: Chloroform often given by the older men better than ether. The older practitioners not familiar with the drop method. Nitrous oxid preceding ether is best method. Small suture material to be preferred. If the intestines are roughly handled there is liable to be post-operative intestinal distention. Incision should be closed by layers.

Dr. H. O. Pantzer: Chloroform to be preferred to ether. Morphin and atropin should precede chloroform. Patient should be anesthetized in room adjoining the surgery. Has used the H-M-C tablet for three years with very satisfactory results. Sometimes the effect varies. Chloroform is usually given in too large amounts. When chloroform is given properly there is less shock, less disturbance of circulation or respiration, less perspiration, less nausea, and less abdominal distension than when ether is given. Enemata are used to start bowel action. Physostigmin is used to relieve gaseous distention.

Dr. T. B. Noble said he did not believe in giving H-M-C tablets as a routine. Nitrous oxid not desirable because of the cyanosis and excitation. Somniform alone, in short operations, or as an antecedent to ether in longer operations has been found satisfactory in three hundred cases. If incision is closed in layers no dead spaces can be formed. The subcuticular stitch is used in closing the skin.

Dr. David Ross: The question of the anesthetic is a serious one for the operator. Chloroform should be used only by an expert. The incision should be large enough to make the work easy, since rough handling of tissues often causes trouble.

Dr. Shipp: Choice of anesthetic depends on patient. Chloroform is more dangerous than ether. In some cases chloroform is indicated. Ether usually given because less dangerous. Ethyl chlorid is a valuable anesthetic and without bad results.

Dr. A. W. Brayton: A great deal depends on the manner of giving an anesthetic. During the Civil War there were only four deaths from anesthesia and chloroform was universally used.

Dr. T. C. Kennedy said that he had used chloroform in majority of cases with no bad results. It should be given only by experts.

Dr. A. S. Jaeger said he had never seen any bad results from chloroform. Other things being equal, anesthetist should give the anesthetic he feels most competent to give. Nitrous oxid preceding ether is a good habit. In closing wound, the sutures should not be made too tight.

Dr. H. O. Pantzer: Morphin previous to an operation prevents post-operative pain. Two deaths following chloroform anesthesia were reported which were not due to anesthetic. Morphin and hyoscin prevent the bad effects of chloroform and allow the using of a much smaller amount.

In closing, Dr. Eastman said that the strong antiseptics do not have the action claimed for them. Ether the best anesthetic for the inexperienced. The sutures should approximate the fascia. Through and through sutures not necessary. Mental condition of patient before operation should be considered. The H-M-C tablet gives complete relaxation.

Dr. A. W. Brayton called attention of society to Dr. W. H. Wishard's 96th birthday the following Wednesday. The society voted that president appoint a committee of five to call on Dr. Wishard on his birthday and offer the congratulations of the society.

Adjourned. H. R. McKinstray, Secretary.

Meeting of January 23

Meeting called to order by president with 52 members present. Minutes of last meeting read and approved.

Application of Dr. H. R. Alburger read for first time. Applications of Drs. V. A. Lapenta and L. B. Mueller read for second time and referred to Council.

Dr. M. N. Hadley read a paper on the subject "A Consideration of the Excretory Ducts of the Liver and Pancreas and their Relation to Diseases of these Organs." In order to obtain a broad conception as well as an accurate differentiation of diseases of liver and pancreas and their ducts, minute anatomy of organs and structures is necessary. Pancreas subject to wider variation in shape and size than any other glandular structure of body, and the relation existing between pancreas and its ducts and the common bile duct is also subject to wide variations. The altered pathology of these organs as a result of variation in anatomical relations is brought about in two ways, first—the number and patency of the excretory ducts of the pancreas, and second, the relation of common bile duct to head of pancreas. The fact that the pancreas arises from three different centers of origin explains frequent anomalies in its own structure as well as its ducts. Nature seemingly has not well guarded the interests of the pancreas in identifying its excretory ducts with that of the liver. Acute hemorrhagic necrosis, interstitial pancreatic fibrosis, diabetes mellitus and obstructive jaundice are all conditions attributable, in a per cent. of cases to one or the other of the anatomical relations discussed. Emphasis is laid on the fact that a very large per cent. of cases of gall-stone disease are potentially if not actually complicated by pancreatic disease which is to be remembered both by the surgeon who is operating for the relief of this disease and the internist who may advocate therapy other than surgery. Dissected specimens and diagrams were exhibited.

Dr. T. C. Kennedy read a paper on the subject, "Indication for Surgical Interference in Gall-Stone Diseases." The author gave the results of his personal observation during the last twenty-eight years, both as an internist and as a surgeon. He thinks if these cases were placed in the hands of a competent internist early in the disease and attention given to the gastro-intestinal tract and teaching the patient correct methods of living, there would be less work for the surgeon to do in this line. One difficulty lies in the fact that the medical student has it so instilled in him that nothing can be done for these patients except to give a dose of morphin to relieve them until they can go to the surgeon, that no effort is made to overcome the infection which is said to be the source of all the trouble.

In some cases after a course of medicine with attention to the diet and condition of gastro-intestinal tract patients believe themselves cured, as they are entirely relieved of their symptoms.

In order to show the very serious condition that may be present without giving rise to any symptoms, Dr. Kennedy reported two cases. Case 1, female, aged 72, was suffering from a mitral lesion with no symptoms of gall-bladder or stomach trouble. Dr. Earp saw the case in consultation. Her death occurred in a short time and a post-mortem showed, in addition to the heart lesion, a contracted gall-bladder entirely filled with four facetted stones. Believes no one would have suspected gall-stones in this case. Case 2, female, aged 54, had been in good health until September, 1911, excepting slight loss of weight. Slight itching began over entire surface of body which continued for several days when she gradually became jaundiced. This increased in spite of medication. Dr. A. B. Graham saw the case. Malignancy suspected and an exploratory operation done. A contracted gall-bladder was found containing one very large stone and about one hundred small ones. Microscopic examination verified diagnosis.

The one thing insisted on by all surgeons is drainage of gall-bladder. No doubt true that gall-bladder may be drained, in a great many cases, by liquifying and relieving inspissated condition. The essayist believes that his years of experience in which he has seen his patients get rid of their gall-bladder symptoms and believe themselves well, acts as a safety valve when he is inclined to be overenthusiastic in his surgical opinions. Thinks cases should be operated when attacks are repeated and especially when discomfort persists between attacks. In cases of obstruction of the ducts, operation should be resorted to, also in those cases where symptoms indicate contraction of gall-bladder.

In conclusion, he said that he was firmly convinced much can be done in many instances to prevent the necessity of surgery by proper attention from internist.

Discussion. Dr. G. W. Hays: Obstructions in the ampulla of Vater interfere with the flow of both the pancreatic and liver secretions. Pancreatic disease often associated with liver disease. Liver disease not often induced by pancreatic disease. Treatment of both conditions surgical.

Dr. John Cunningham: Presence of gall-stones, without symptoms, does not mean that the condition is benign. Case reported of death from gall-stones during typhoid. Previous to the typhoid there were no symptoms due to presence of gall-stones. Early operation probably would have saved life of patient. A second case was reported in which gall-stones, complicating another condition, caused death. Treatment of gall-stones always surgical. Diagnosis of gall-stones interesting. Malignant disease often caused by presence of gall-stones. A case of diabetes following jaundice was reported. Patient recovered with diabetic treatment. Pathology not determined.

Dr. R. O. McAlexander: Emphasis should be laid on the diagnosis of gall-stones. Conservatism necessary, but possibility of complications always indicates surgery. Even if there are no symptoms a surgical condition continues to exist and is a constant indication for surgery. The patient with gall-stone disease is in constant danger. Medical treatment not definite. The only sensible treatment for gall-stones is removal. There may be symptoms after operation from adhesions but the results are generally good.

Dr. Geo. J. Cook: Gall-stones result from cholecystitis and the term gall-stone disease a misnomer. Surgery should always be directed to disease of the gall-bladder. Stones cannot always be diagnosed. A plug of bile can cause all the symptoms of stones. Presence of stones is positive indication for operation. In cases cured by medical treatment the stones were not yet formed. Possible for stones to cause no symptoms. Case reported in which stones were discovered during an appendectomy. No previous evidence of stones. A patient having symptoms from the presence of gall-stones will not recover without surgery.

Dr. C. F. Neu: Gall-stones are frequently present without symptoms. Diseases of liver and pancreas liable to be associated, on account of anatomical relations, if the affections are of bacterial origin. If stones are free in the bile ducts and do not excite spasm they cause no pain.

Dr. A. B. Graham: The diagnosis of gall-stones is not easy. There may be stones without symptoms or symptoms of stones without their presence. If stones are positively diagnosed, surgery is indicated. In acute cases of gall-bladder disease, patient should be treated expectantly until a positive diagnosis can be made.

Dr. J. R. Eastman: Surgery is indicated in cases of chronic inflammation of gall-bladder or ducts. The kidney, gall-bladder and ducts, and appendix are associated in symptomatology. In indefinite cases an exploratory operation should be done. In drainage of gall-bladder adhesions form to abdominal wall even though at operation gall-bladder is not attached. Gall-stones should always be removed if known to be present. A cholecystectomy should not be done but drainage instituted until ducts recover from the inflammation.

Dr. T. B. Noble: Positive diagnosis of conditions involving the right upper abdominal quadrant is difficult or impossible. Gall-stones may be formed without inflammatory trouble. Biliary stasis is first prerequisite. Desquamation furnishes the other element. Gall-stones are seven times as frequent in women as men; sedentary habits predispose to their formation, and children with inflammatory diseases do not have them. Treatment of gall-stones always surgical. Question of diagnosis the important one. Most satisfactory results seen when a cholecystectomy is done.

Dr. A. C. Kimberlin: Dr. Hadley's paper deals with facts and Dr. Kennedy's paper suggests the value of a definite diagnosis. If stones are in gall-bladder with symptoms surgery is definitely indicated. Case reported in which a glycosuria complicated gall-stones. Surgical treatment with removal of the stones was followed by recovery. Cholecystectomy presupposes a definite diagnosis. In view of indefinite indications, drainage is best procedure. In diagnosis the history is very important.

Dr. A. S. Jaeger: Gall-stones are liable to be formed by any condition that allows biliary stasis. Drainage not always sufficient. Three cases reported. All cases should be operated as soon as diagnosis is positive.

In closing, Dr. Hadley called attention to dissected specimens showing anomalous conditions of the pancreatic ducts described in his paper.

Dr. Kennedy, in closing, said that the paper was presented for the purpose of eliciting discussion. Reported case with very large stone with no symptoms until four weeks before operation.

Adjourned. H. R. McKinstray, Secretary.

ADAMS COUNTY

The Adams County Medical Society met in regular session January 12. Councilor B. Van Sweringen was present and made some remarks in regard to the society work.

Dr. M. T. Jay, of Portland, read a very excellent paper on "Medical Inspection of School Children."

Adjourned. C. C. Rayl, Secretary.

BLACKFORD COUNTY

The Blackford County Medical Society held its annual meeting in the office of the secretary, Hartford City, Dec. 29, 1911. Election of officers resulted as follows: President, J. A. Taylor, Montpelier; vice-president, J. H. Lorimor, Hartford City; secretary-treasurer, M. M. Clapper, Hartford City; censor, J. C. Kirkpatrick, Roll; delegate, George H. Dando, Montpelier; alternate, C. W. Corey, Hartford City.

Adjourned. M. M. Clapper, Secretary.

DELAWARE COUNTY

The regular meeting of the Delaware County Medical Society was held February 2.

"Artificial Rupture of the Membranes," was the title of a paper presented by Dr. F. G. Jackson. In part, Dr. Jackson said that rupture should never be done for the purpose of encouraging a discouraged patient with a belief that progress is being made, nor with a hope that it will hasten a protracted labor. Older writers advocate rupture of the membranes as soon as the head is firmly engaged and the cervix fully dilated, but we often have cases where dilatation appears to be complete, we rupture the membranes only to find that when the next uterine contraction following the emptying of the sac occurs, the os is contracted to about the size of a silver dollar. We then realize with dismay that our judgment was wrong, and that we have lost forever the assistance of the little mem-

branous wedge. No reason for rupturing membranes before delivery of head as bag of water has not completed its usefulness and does not in any way interfere with descent of child. Rupture of membranes may necessitate subsequent use of forceps: use of forceps in a primipara nearly always results in a tear of some extent, therefore rupture of the membranes becomes responsible for a lacerated perineum. The fluid wedge is just as useful for dilating vaginal canal and vulva as for dilating os uteri, and any gain from firmer and more frequent contractions because of artificial rupture of the membrane is overbalanced by loss of this fluid wedge. In conclusion the author said, that when considering artificial rupture of the membranes it should not be done as they will rupture themselves at the proper time.

In discussing Dr. Jackson's paper, Dr. G. W. H. Kemper said that he does not fear early rupture of membranes. In a large number of cases occurring in his own practice, labor did not start until after the spontaneous rupture. In not a few instances rupture was the first premonition of labor.

The paper was also discussed by Drs. C. W. Smith, G. W. Bucklin and I. N. Trent.

Adjourned. H. D. Fair, Secretary.

GRANT COUNTY

The regular meeting of the Grant County Medical Society was held January 23. The members first met at the Oyster Bay Hotel where a substantial supper was served. This was the best attended of any of the meetings during the past year, three-fourths of the entire membership being present.

Dr. Eshelman presented a clinical case for examination, and the president appointed Drs. Overman, Eshelman and Trook as a committee to examine the man and report their findings later in the evening.

Dr. Fankboner presented a case of insomnia which was referred to a committee consisting of Drs. Bridge, Crumrine and Vigus.

The secretary read the correspondence he had received and the answers he had written in reply during the last month, that the society might know more of the business affairs as carried out through the officers.

President McQuown mentioned the fact that it had been called to his attention that Dr. Braunlin, of the Soldiers' Home, had been practicing medicine in the county, outside the Home, without a county or state license. He also stated that Dr. Truman, of the Gary Institute, is said to be engaged in the practice of medicine without the formality of securing either a county or state license. These matters were referred to the Committee on Legislation for further investigation.

The application of Lloyd G. Campbell, of the Soldiers' Home, was balloted on and he was elected to membership.

The applications of Drs. Brookie and Newell, of Converse, Miami County, were discussed in full and the correspondence with the Miami County Medical Society read in full. It was shown that Drs. Brookie and Newell had made application for membership in this society for the purpose of convenience in attending the meetings, and the consent of the Miami County Society was asked for in taking them into membership. This was refused at this time, though no reason was given. Grant County was assured that it was not for any personal reason and not for any disqualifications on either of the applicants. After a lengthy debate in favor of taking in the two men, it was decided to await the further pleasure of Miami County, but in the meantime the secretary was instructed to write the men that the courtesies of the Grant County Medical Society were extended to them and that they were invited to attend our meetings and take part in our affairs.

Dr. Cameron introduced Mr. Green, a Swedish movement instructor and masseur, who is in Marion seeking employment under the direction of the attending physician. It was suggested that this would be a good thing to prevent many cases that needed massage from falling into the hands of chiropractors and quacks.

President called attention to the fact that one of our members, Dr. G. W. Daniels, of Sweetser, has been confined to his bed for weeks and would appreciate visits from members occasionally.

The secretary read a communication from Dr. G. G. Richardson, of Van Buren, thanking the society and the individual members for their aid and sympathy during the illness and death of Mrs. Richardson.

Dr. D. A. Holliday presented an unusual case thought to be an aneurysm of the subclavian artery, and will bring the man back for further examination at the end of two months.

The secretary read the names of physicians in the county eligible to membership and suggested that they be solicited to join.

The application of O. M. Davis, Marion, was read and referred to the Board of Censors for a report at the next meeting.

Dr. R. E. Egbert presented a paper on "Pustular Acne." In part the author said that acne is an inflammation of the small glands of the skin, often neglected by the family physician because of the stubborn nature of the complaint. Subjective symptoms are few and often wanting. Occasionally pain is experienced by the patient when the pustules are actively inflamed, but the sensation is in reality more of discomfort with itching. The disease is not confined to either sex, but is more frequently met with in males at the age of puberty. Persons who work in chemicals where chlorin is used are very apt to have pustular acne. The condition is sometimes caused by the iodids and bromids when given in excessive doses. In discussing treatment, the author emphasized the fact that while the disease often attacks the robust and apparently healthy individual, it is often essential to combine constitutional with local treatment. Many cases cured by subcutaneous injection of 10 drops of a 1 per cent. solution of arsenic iodid two or three times a week. Sulphur and calcium sulphid efficient, but their use must be continued over a long period of time. Hypodermic injection of the vaccines offers a new field to those having become discouraged with the old line of treatment. Staphylo-acne bacterin gives excellent results in stubborn cases, though some cases do better on autogenous vaccines. More than one kind of vaccine is necessary in mixed infections. The staphylo-aureus vaccine is claimed by some to give best results, as many think it is the most frequent microorganism found in all cases of acne. The local application of Brewers' Yeast has proven very successful in a few cases.

Dr. C. J. Overman read a paper on "Immunity," in which he said that the trend of therapeutics to-day is towards finding something to neutralize the toxins of the body or to give something which will stimulate the natural resources within the body to destroy its own toxins; the first we may call antitoxins or serums, and the latter vaccines. In the case of typhoid fever, the patient's resisting power is low for this particular dis-

ease. If left alone, the patient himself will raise his own resisting power to the point which gives him immunity to this disease. The long list of intestinal antiseptics will not do this. We should take a broader conception of its treatment and use something which will neutralize the toxins or aid the patient to raise his own resistance. The rapid evaporation of the salts and watery elements of the body during any acute inflammatory disease lowers the body resistance. Then why not give normal salt solution in all diseases of this class, thereby trying to sustain the normal condition of the body? If such an effort be successful, the patient's resisting power would be sustained or increased. To keep the immunity high, give plenty of water and sodium chlorid or normal salt solution. Much better to treat diseases by sustaining or raising the patient's resistance, than to give this drug or that in an aimless way without thinking of the real object to be gained. To Wright and his followers we owe much for the latest ideas in treatment. Recent authorities on immunity claim that our resistance to disease is promoted by the secretions from the ductless glands. It is known that if any of the ductless glands be removed, the patient soon dies. It seems reasonable to ascribe to them some function, as that of sustaining the immunity of our bodies, and we should pursue investigation and study along this line.

General discussion.

Adjourned. V. V. Cameron, Secretary.

HUNTINGTON COUNTY

The Huntington County Medical Society met in regular session January 3, with President Good in the chair.

Dr. Good read a very interesting paper in which he advocated the establishment of a public hospital through public and private beneficence. He stated that there were several public spirited citizens, any one of whom, if properly approached, would give a munificent sum to such a purpose. General discussion.

Report of program committee was heard and adopted, and the program ordered printed.

Adjourned. R. Q. Taviner, Secretary.

JEFFERSON COUNTY

The regular meeting of the Jefferson County Medical Society was held January 10, at the Southeastern Indiana Insane Hospital, by invitation of Dr. Busse and assistants. A clinic of the most common mental diseases was held, followed by a visit to several of the wards.

The election of officers, held at the December meeting, resulted as follows: President, J. H. Christie; vice-president, H. S. Hatch; secretary, Fred C. Denny; delegate, S. A. Whitsitt; alternate, Vincent Shepherd.

Adjourned. Fred C. Denny, Secretary.

KOSCIUSKO COUNTY

A banquet at the Hotel Hays, Warsaw, preceded the meeting held December 28.

Dr. W. F. Howat, president of the State Association, delivered an address before the society on "Our State Organization."

Report of secretary-treasurer for 1911 was read and accepted. Chairman of program committee recommended that the January and February meetings be omitted, that the June meeting be held at Claypool and the September meeting at Leesburg. By vote of society these recommendations were adopted.

A vote of thanks was given Dr. Howat for his splendid address and to Drs. Yocum and McDonald for the banquet.

Election of officers for 1912 resulted as follows: President, A. C. McDonald, Warsaw; vice-president, C. E. Thomas, Leesburg; secretary-treasurer, C. N. Howard, Warsaw; censor for three years, S. C. Murphy, Claypool.

Adjourned. C. N. Howard, Secretary.

OWEN COUNTY

At the regular December meeting of the Owen County Medical Society, the following officers were elected for the year 1912: President, Geo. E. Willoughby; vice-president, Thomas Gantz; secretary-treasurer, Allen Pierson; censors, H. A. Fox, N. D. Cox, and B. Yocum.

Adjourned. Allen Pierson, Secretary.

ST. JOSEPH COUNTY

Meeting of January 2

Society met in regular session January 2. Communication from proposed Public Welfare League presented and on motion laid over until next meeting. Minutes of previous meeting read and approved.

Dr. C. M. Butterworth read a paper on "The Bladder, Its Embryology, Pathology, Histology and Anatomy." General discussion.

Motion carried that secretary communicate with Senator Shively and Representative Barnhardt and tell them that St. Joseph County Medical Society unanimously indorses the Owen Bill, and ask them for their support.

Motion carried that president appoint committee to arrange for second annual social session to which are to be asked members of this society, their wives and ladies.

Adjourned. R. C. Shanklin, Secretary.

Meeting of January 16

Minutes of previous meeting read and approved.

Dr. Bosenbury reports case of man, middle age, both legs had been amputated for gangrene some years ago; at present tortuous temporal arteries: tumor mass in left femoral region, been there for one and one-half years and diagnosed as aneurysm; no pulsation, no bruit, but edema and pain. Trochar introduced; some clear fluid followed by pus. Incision made and drained four days; later drain removed, and one-half to three-fourths pound of material removed similar to goose fat; clots removed from heart at autopsy.

Dr. S. A. Clark gave a talk on the following subject; "The Medical Work I Saw in Europe." At Berlin visited Rudolph Virchow Hospital. An enormous place built on the cottage plan and divided into medical and surgical sections. Everything absolutely modern.

In Wien visited Allgemeiner Krankenhaus which is 200 years old, and looks the part. Surgeons careful in technic. Post-graduate work under control of the American Medical Association of Wien which has a club house, rooms and library. Work divided into departments and each in charge of an American, whose duty it is to see that the courses are full. Was interested in pathology and x-ray work, and believe the opportunities here equal to any in the world. The hospital is a National affair and part of the University of Wien. At present a new hospital is being built and

the Woman's Clinic and Medical Clinic are finished. The work very satisfactory. Small classes, excellent teachers and abundant material. Four of us took anatomy of female pelvis of Tandler who had done 2,000 dissections and concluded that the levator ani supports uterus and that the ligaments keep the uterus down during labor. This was done preparatory to the Wertheim operation. X-ray work done on an extensive plan. All professors kind, courteous and anxious to please. Discussion general.

Communication from Public Welfare League taken from the table and the letter and part of constitution read and discussed. On motion society respectfully declined to affiliate with proposed Welfare League.

Drs. W. A. Hager and H. F. Mitchell, as entertainment committee, reported that Dr. Hart, missionary-surgeon to China, would talk on experiences in China, at the social session.

Adjourned. R. C. Shanklin, Secretary.

Meeting of January 23

Minutes of previous meeting read and approved.

Dr. Chas. Stoltz read a paper on the subject, "Who Shall Operate?" Discussion general.

Library committee reported that $430 had been collected; a list of books has been sent out by librarian for bids, and soon there will be twenty magazines on file.

Motion carried that no funds be appropriated from the general funds of the society for the second annual social session.

Motion also carried that two dollars be charged for each banquet ticket.

Adjourned. R. C. Shanklin, Secretary.

Meeting of January 31

Minutes of previous meeting read and approved. Fourteen members present.

Dr. E. J. Lent reported case of boy 12 years old, who had had a discharge from ear for two weeks; at time of examination temperature 103 F., discharge from ear, tender mastoid, and boy looked septic and anemic. Radical mastoid operation, small amount of virulent pus; tissues had peculiar appearance, and some granulation present. After operation temperature 100 F.; next evening went up to 104 F., fluctuated this way for week; appetite good; slept well; no chill; no sweat; no pain; thought of sinus thrombosis. Operated again, no sinus involvement nor subdural abscess, though small amount of pus found along posterior wall of canal. Few days later patient complained of pain in sacro-iliac joint. Temperature curve continued for four to five weeks. Mastoid wound healed nicely. A mass appeared on right side over Poupart's ligament. Opened and drained.

Dr. S. A. Clark said that the induration was in line of Poupart's ligament and the abscess had burrowed under the ligament and around neck of femur; there was a cavity extending retro-peritoneally as far as could reach with examining finger. Hip joint apparently not involved. Most of fluid clear serum though mixed with pus. May prove to be a Pott's; could not have been a metastasis because embolus could not have passed through lung.

Dr. H. M. Miller: It was probably a bacteremia.

Dr. F. P. Eastman reported case of woman six months pregnant; albumen in urine. Had trouble following birth of first child. Condition continued with little change; ten days ago confined. Normal in all respects and no interference necessary, not even vaginal examination, because child was born before doctor arrived and placenta expelled by Credé method. Third day chill, temperature 102 F.; fourth day temperature 104 F.; milk dried up, very septic, abdomen flat and slight thickening in left tube. Was it case of septicemia or uremia?

Dr. C. A. Daugherty: It was case of septicemia and may have started from infected urine.

Dr. H. M. Miller: It was case of uremia because of large amount of albumen and the history.

Dr. H. M. Miller read an article from the last *Journal of the A. M. A.*, entitled, "Medical Ideals for the Every Day Practitioner," by Dr. W. W. Anderson. Discussion general.

Lantern committee have written to two firms. The McIntosh Co., of Chicago are going to send one of their lanterns on approval.

Adjourned. R. C. Shanklin, Secretary.

TENTH DISTRICT

The regular meeting of the Tenth District Medical Society was held in Gary in January. The election of officers resulted as follows: President, S. J. Young, Valparaiso; vice-president, C. C. Bassett, Goodland; secretary-treasurer, O. B. Nesbit, Valparaiso.

The following program was given: "Some Nutritional Problems in Infancy," Dr. C. C. Bassett, Goodland. Discussion by Drs. Frank Kennedy, Goodland; T. E. Collier, Brook; and L. H. Recker, Morocco. "Progressive Medicine," by Dr. H. H. Martin, Laporte. Discussion by Drs. Bo C. Bowell, Laporte; J. B. Rogers, Michigan City; and Arthur Simons, Laporte. "Safety Elements in Modern Surgery," by Dr. S. J. Young, Valparaiso. Discussed by Drs. Geo. Orf, Indiana Harbor; D. J. Loring, Valparaiso; and H. G. Merz, Hammond.

A banquet was served the visiting physicians by the medical profession of Gary.

The next meeting will be held in Michigan City some time during next May.

Adjourned. A. B. Nesbit, Valparaiso.

TIPPECANOE COUNTY

Meeting of January 8

The first annual meeting of the Tippecanoe County Medical Society was held in Lafayette, January 8. Minutes of previous meeting read and approved.

Dr. Hupe reported case of typhoid fever with relapse at fifth week, the peculiarity being a return of the eruption in the umbilical region.

President Keiper delivered his president's address on the subject, "The Value of a Medical Society." Discussion by Drs. Webster, Driscoll and Beasley upon the commercial aspect of medicine and the tendency of the profession to become narrow.

Motion carried that Dr. Keiper's address be sent to The Journal for publication.

Motion carried that Secretary's action in having the minutes of the society published in The Journal be endorsed by the society.

The paper of the evening was read by Dr. Loop on the subject "Auto-intoxication." Discussion by Drs. Webster, Levering, Driscoll and Beasley. Closed by Dr. Loop.

Bill for $5.50 for 200 programs and one for 50 cents for transfer was allowed secretary.

Treasurer's annual report read and accepted.

Adjourned. E. Van Reed, Secretary.

Meeting of January 22

The society met in regular session with eight members present. Minutes of previous meeting read and approved.

Dr. Beasley reported an interesting accident case, the case being one where the clavicles could not be held in place, it becoming necessary to wire them.

Dr. Reser reported a case of fracture in which he got an excellent result by use of the silver plate to retain the fragments in place.

There being no papers, miscellaneous business was taken up, President Keiper calling attention to the fact that it was suggested by the A. M. A. in its journal of July 1, 1911, that each society have a committee on Public Health and Education. On motion the following committee was appointed by the president: Drs. Adah McMahan, Severance Burrage and R. M. Campbell, Dr. McMahan being chairman.

Dr. Thompson of Indianapolis was a visitor.

Adjourned. E. Van Reed, Secretary.

BOOK REVIEWS

The Diseases of the Stomach. With special reference to treatment. By Charles D. Aaron, M.D., Sc.D., Professor of Gastro-Enterology in the Detroit Post-Graduate School of Medicine; Professor of Gastro-Enterology and Adjunct Professor of Dietetics in the Detroit College of Medicine. Octavo, 555 pages, with 42 engravings and 21 plates. Cloth, $4.75 net. Lea and Febiger, Philadelphia and New York. 1911.

In this new work upon diseases of the stomach, Dr. Aaron has endeavored to give the profession a work primarily practical and one which leans largely toward conservatism from the standpoint of therapy. In fact, the bulk of the work consists of a discussion of therapeutics, only so much of etiology, symptomatology, pathology and diagnosis being introduced as is necessary to a correct conception of the methods of treatment offered. The subjects of serum therapy and bacterial vaccines have been included and are brought up to date. A very interesting and commendable chapter upon the physiology of digestion opens the work. A very creditable chapter is that on diet and gastric diseases, there being presented a list of various dietaries suitable to the conditions at hand.

The author is to be complimented on his stand regarding certain of the artificial food preparations and especially some of the meat extracts and meat juices for which high food values are claimed by the manufacturers. It is now well known that such values are not present in the products for which they are claimed, and that the preparations act more as stimulants than actual sources of food. The author very pertinently remarks in closing this chapter, "When we order foods we want foods and not nerve stimulants or stomachics."

One would gain the impression from a general review of the work that the author leans decidedly toward medical treatment where it is at all possible, although he is willing to give surgery the credit for some very beautiful and satisfactory results. But one cannot but feel that he is straining a point when he declares that less than 2 per cent. of stomach cases require surgery. In view of the more recent accomplishments along the line of gall-bladder, duodenal and pancreatic surgery which are so closely interwoven with gastric symptoms, we feel that this statement is open to serious question.

The book is beautifully gotten up; the paper and type most excellent; the cuts clear, distinct and profuse.

Serum Diagnosis of Syphilis and the Butyric Acid Test for Syphilis. By Hydeyo Noguchi, M.D., M.Sc., Associate Member of the Rockefeller Institute for Medical Research, New York. Second edition revised and enlarged to 238 pages. J. B. Lippincott Co., Philadelphia, Pa., 1911. Cloth, $2.50 net.

The Noguchi modifications of the Wassermann test having withstood the storm of criticism and having been found to be a reliable and delicate serum test for Syphilis, a new up-to-date edition of this little work should be welcomed by those interested in the subject. The new edition contains numerous alterations and elaborations in the text and new details introduced in order to widen the application of the test and render the details, which make for accuracy, more easily understood by both the serologist and practitioner. The work also contains chapters reviewing to date the literature as to the clinical value of the Wassermann test and also the results of its application to patients treated with salvarsan. The author's butyric acid test is also described and its status assured through successful application by neurologists. Altogether this work is an invaluable addition to the medical library.

A Text-Book of Surgical Anatomy. By William Francis Campbell, M.D., Professor of Anatomy at the Long Island Hospital. Second edition revised. Philadelphia and London: W. B. Saunders Company, 1911. Cloth, $5.00 net; Half Morocco, $6.50 net.

Few changes characterize this new second edition save for such additions and corrections as serve to make the text more complete and exact. Several illustrations have been replaced by new ones for the sake of accuracy.

The same excellence of text, illustration and general make-up are, of course, present in the new edition, that marked the initial one.

The Treatment of Fractures: With Notes Upon a Few Common Dislocations. By Chas. L. Scudder, M.D., Surgeon to the Massachusetts General Hospital. Seventh Edition. Revised and Enlarged. Octavo volume of 708 pages, with 990 original illustrations. Philadelphia and London: W. B. Saunders Company, 1911. Polished Buckram, $6.00 net; half morocco, $7.50 net.

This well-known work has reached its seventh revision, and while its general appearance remains the same there have been many new radiograms added as well as new material in the text of a number of the subjects considered. This has resulted in an increase in the size of the book.

A perusal of the chapter on the operative treatment of fractures, which is new to this edition, discloses a commendable conservatism of the author. He recognizes the need for operative intervention in some cases but thinks it should be possible for the surgeon often to select those fractures in the initial treatment of which operative measures will afford better results than non-operative methods. In this way late operations will be avoided and better results secured because it is far easier to operate upon a recent fracture than upon an old fracture. He supports his conservatism by saying that ideal results, such as it is possible to secure by the open method, are often unessential and that the ideal treatment may not be the most expedient.

Altogether the chapter is not as full as the importance of the subject would seem to warrant. We have no doubt that Dr. Scudder finds reason for operative intervention less frequently in the treatment of fractures than others who are less skillful in their reduction and fixation, but it might not have been amiss to

go into the subject more extensively, although we believe that time will prove the correctness of his conservative attitude.

There is no more authoritative work on the subject extant.

Progressive Medicine. A Quarterly Digest of Advances, Discoveries and Improvements in the Medical and Surgical Sciences. Edited by Hobart A. Hare, Prof. of Therapeutics and Mat. Med. in Jefferson Medical College, Philadelphia, Assisted by Leighton F. Appleman, Instructor in Therapeutics, Jefferson Medical College, Philadelphia, Dec. 1, 1911. Lea & Febiger, Philadelphia and New York. Paper. pp. 326. Price, $6.00 per annum.

The most complete review of medical and surgical progress contained in this volume is that of Lavenson on diseases of the digestive tract and allied organs, the liver, pancreas and peritoneum. This is probably because of the abundance of literature on these subjects within the past year, as well as the author's careful perusal thereof.

Bradford's section on the kidney is short but well supplemented by that of Bonney on genito-urinary diseases. The latter gives considerable attention to the new phenolsulphonephthalein test of renal function, elaborated by Rowntree and Geraghty, and is inclined to ascribe to it a very favorable place in renal diagnosis.

As usual, Bloodgood's chapter on surgery of the extremities, shock, anesthesia, infections, fractures and dislocations, and tumors, is well done. The author urges a more general adoption of the nitrous-oxid-oxygen form of anesthesia.

The volume closes with a creditable chapter on therapeutics by Landis.

A Text-Book of Medical Diagnosis. By James M. Anders, M.D., Professor of the Theory and Practice of Medicine and of Clinical Medicine; and L. Napoleon Boston, M.D., Adjunct Professor of Medicine, Medico-Chirurgical College, Philadelphia. W. B. Saunders Company, Philadelphia & London. Cloth, $6.00 net; half morocco, $7.50 net.

The prominence of the authors of this work in their respective fields of internal medicine and laboratory diagnosis, alone assures the purchaser of this work that he is securing one of the most authentic and conclusive in this field of medicine. Indeed no happier combination could be conceived in American medicine, for the production of a thorough treatise on diagnosis.

The plan of the authors has been one of correlation of symptoms with the structural changes and organismal agents upon which they are dependent—a most rational method.

Brief pathologic definitions of special diseases are followed by descriptions of illustrative cases taken from the authors' hospital and private practice, and diagnostic tables enable differentiation to be made of closely allied conditions. A useful innovation is the summary of diagnostic features and laboratory diagnosis offered in connection with the individual complaints described.

Exception might be taken to the description offered of the subcutaneous tuberculin test, both as to the technic and the diagnostic value attached thereto by the authors. Few clinicians are at present willing to stop with a dose of five milligrams of old tuberculin in the exclusion of tuberculosis, and the consensus of opinion is that this remains to-day the most valuable form of the various tuberculin tests.

The work is profusely illustrated both by photographs and in color, and is complete in all the salient features of a comprehensive work on diagnosis.

Lippincott's New Medical Dictionary. A vocabulary of the Terms Used in Medicine, Dentistry, Veterinary Medicine and the Allied Sciences, with their Pronunciation, Etymology and Signification, Including Much Collateral Information of a Descriptive and Encyclopedic Character. By Henry W. Cattell, A.M., M.D., Editor of International Clinics, Fellow of the College of Physicians of Philadelphia, etc. Freely illustrated with figures in the text. Second Edition Flexible Leather. Pp. 1108. Price $5.00. J. B. Lippincott Company, Philadelphia and London.

The fact that one reprinted and one new edition have been demanded of the publishers of this work within one year from the date of its appearance are sufficient evidence of the satisfaction enjoyed by the profession over Dr. Cattell's excellent work in this field.

Further evidence that the author is fully alive to his responsibility in editing a work of this scope is offered by the fact that in this new second edition, but a year older than the first, over 5,000 additions and changes have been made, seventy-one new illustrations and five hundred new words added, many of the old illustrations having been discarded and not a few of the new words appearing for the first time in a medical dictionary. Medical literature has been carefully reviewed for the latest and most authoritative information on the newer scientific terms, an illustration of this fact being offered by the very excellent description of "606."

The work is thumb-indexed, which adds materially to its usefulness for ready reference.

The paper is excellent, being thin yet not at all transparent, and the type is equally good.

We predict for this dictionary a place on the market unexcelled in the history of medical dictionaries.

One Hundred Surgical Problems. The Experiences of Daily Practice Dissected and Explained. By James G. Mumford, M.D., Visiting Surgeon to the Massachusetts General Hospital; Instructor in Surgery, Harvard Medical School, etc. Octavo, pp. 354. Cloth, Price $3.00. Published by W. M. Leonard, Boston.

This interesting work follows the lines along which Cabot has so forcefully brought out a method of differential diagnosis in internal medicine, viz.: that of reciting actual case histories with their findings, both physical and laboratory. In this manner there is offered in systematic form a fund of information that differs from the time-honored cut and dried works on diagnosis which follow through certain symptoms and findings for various ailments, and there results on the part of the reader a keen enthusiasm like that kindled in the breast of every conscientious student of medicine.

The classification of these selected cases into groups showing the various phases of each subject, makes the work of equal interest to the surgeon and the internist, and particularly so when followed by so thorough a discussion of the diagnosis, treatment and results thereof

Indeed, it would seem that there is destined to be a more satisfactory field for this sort of teaching in surgery than medicine, from the fact that an opportunity for verification of diagnosis is offered by the operating table which is only occasionally presented in medicine —the opportunity for post-mortem examination.

Dr. Mumford is to be congratulated upon having brought before the profession so well-selected a group of cases as will elicit a deep interest from every man who is the fortunate possessor of his work.

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ORIGINAL ARTICLES

DIET, WITH ESPECIAL REFERENCE TO THE MEAT QUESTION *

C. NORMAN HOWARD, M.D.
WARSAW, IND.

We will enter on this subject by the time-honored route of proteins, fats, carbohydrates, salts and water. Of these five classes of food, the greatest interest has been centered on the protein supply, and particularly its chief exponent—meat.

For years it was considered that those doing a moderate amount of muscular work should have 118 grams of protein daily. It was Carl Voit of Munich, who was most responsible for establishing this quantity in the minds of those interested in matters of nutrition. He also set forth that the remaining part of the diet should be 56 grams of fat and 500 grams of carbohydrate, making about 3,000 calories of fuel value per day. A number of investigators have kept records of food eaten by different classes of men at work, and found the protein to be anywhere from 100 to 189 grams a day. But as has been said:[1]

"While these figures may be taken as showing quite conclusively the dietetic standards adopted by mankind, there is no evidence whatever that they represent the real needs or requirements of the body."

This, then, was the condition of affairs when Russell H. Chittenden of Yale undertook his practical series of tests. He conducted experiments on five professional men, thirteen men in the United States Army and eight Yale athletes in training. The protein of their ration was reduced to one-half or one-third the amount in an ordinary diet. He did this, too, with practically no increase in the fats and carbohydrates. These experiments were carried on for periods varying from four to nine months. They were conducted with great elaboration as to the character and caloric value of all food taken, examination of excreta, various tests of strength, etc. The long periods of time covered, coupled with the close, accurate attention to details, give these experiments, of course, a very high place in the field of dietetic research. The most important fact is that none of the men were harmed by this great reduction in protein, but, on the contrary, they were improved. There was less fatigue, there was more strength, practically no illness, and a general feeling of increased efficiency and well-being. Some of the men were so much pleased with these beneficial results that they continued along these lines of diet after the experiments had ceased.

Before leaving this part of the subject, it would perhaps be valuable to give a typical day's diet for one of the Yale athletes in this series of experiments, which, you remember, lasted about six months:[2]

"Breakfast: Banana, 106 grams; boiled Indian meal, 150 grams; sugar, 21 grams; cream, 50 grams; bread, 59 grams; butter, 16 grams.

"Lunch: Bread, 55 grams; butter, 13 grams; lamb chop, 37 grams; potato croquette, 105 grams; tomato, 216 grams; sugar, 14 grams; water ice, 143 grams.

"Dinner: Bean soup, 100 grams; fried egg, 22 grams; bacon, 10 grams; lettuce salad, 63 grams; fried potato, 100 grams; coffee, 100 grams; cream, 50 grams; sugar, 21 grams; stewed prunes, 247 grams."

* Read before the Indiana State Medical Association, at Indianapolis, Sept. 29, 1911.

1. Chittenden: Physiological Economy in Nutrition, p. 3.

2. Chittenden: Physiological Economy in Nutrition, p. 379.

I have been interested in figuring out that while the entire amount of food and drink taken at these meals came to between 3½ and 4 pounds for the day, the meat part, however, was less than 2 ounces. Some days no meat at all appeared in the dietary. The daily average for the whole series was about 2,500 calories, as compared with Voit's standard of 3,000 calories, and the average daily protein was about 55 grams, as compared with Voit's 118.

This splendid work of Chittenden's to which I am referring was done in 1903-4. You notice that he does not advocate here a meat-free diet; but in order to secure a reduced protein diet he had of necessity to greatly reduce the amount of meat. I have introduced his work at this point to prove the one fact that it is possible not only to live on a low protein diet, but, furthermore, that it strengthens resistance to disease and increases muscular and mental efficiency. So far as I know, Chittenden's findings have not been successfully controverted. He recently read a paper in regard to the low protein diet, before the British Medical Society, and the report which has come to me stated that while there was a good deal of discussion, yet he easily maintained his position. Furthermore, a search has failed to find any recent article strongly opposing the low protein diet.

I have gradually, for several reasons, grown to the opinion that this low protein diet can be accomplished most successfully by omitting flesh food. Personally, therefore, in the last thirteen months I have taken meat but three or four times. For this same length of time my two little boys (aged 4 and 6) have eaten neither fish, flesh nor fowl, and they are thriving to my entire satisfaction. I do not, however, thus counsel all of my patients in regard to meat, but I do frequently advise a patient to diminish the quantity of meat and in some cases to finally omit it. When a patient periodically appears at your office door announcing that he has another cold or bilious attack, it is especially well not to overlook the question of meat as a possible etiologic factor. The sudden stopping of meat will sometimes result in a sense of discomfort bordering on illness, due to lack of accustomed stimulation. A gradual reduction, however, has not this drawback.

One of the arguments against the use of meat is its possible contamination. It may be well to remember that federal inspection applies only to the large slaughter-houses doing an interstate business; and that there are of necessity a great many other houses in which federal or state inspection does not exist at all. Therefore, a man determined on selling his sick and dying cattle would naturally select a place in which he would be the least apt to be embarrassed by rejection. Thus there are open channels through which meat contaminated by disease and decay may reach our tables. Extremely unsavory facts are sometimes unearthed by official and unofficial inspectors.

But even the best of meat has an increasing amount of testimony piling up against it. The end-products of carbohydrates and fats, you will recall, are carbonic-acid gas and water. These are easily taken care of. Proteins, however, produce crystalline waste products—uric acid being one of them. Chittenden and Fisher both bring out these points of difference. There is a theory that fatigue is in some way produced by these midway products of metabolism. Meat is an especial offender, for it not only produces the deleterious end-products common to the protein family, but it is especially rich in those of the purin type, and harbors the waste products of the slain animal, so that the person eating it has to get rid of these waste products as well as of his own. Thus we find that meat is particularly responsible for intestinal putrefaction and auto-intoxication, which beget fatigue and disease. Herter[3] of New York, in speaking of bacterial infections of the digestive tract, makes this significant remark:

"The question arises whether the abundant use of meat over a long period of time may not favor the development of much larger numbers of spore-bearing putrefactive anaerobes in the intestinal tract than would be the case were a different type of proteid substituted for meat."

Later he says:[4]

"Intestinal indicanuria must be regarded as an evidence of intestinal putrefaction. It is commonly easy to produce it experimentally in dogs by feeding a greatly excessive quantity of meat."

Passing on to the work of Linossier and Lemoine,[5] we find them reporting the toxic effect of some albuminoid substances of animal origin when injected subcutaneously into animals. When these substances were first acted on by gastric juice the poison did not occur, the conclusion being that if the gastric juice of any given person should be deficient in its action, the toxic effect would be felt by his eating those substances which include both meat and milk. Dr. Arnold Lorand of Carlsbad, in his interesting book on "Old Age Deferred," speaks of meat being better absorbed than any other albumin and of its ability, there-

3. Herter: Bacterial Infections of the Digestive Tract, p. 86.

4. Herter: Bacterial Infections of the Digestive Tract, p. 261.

5. Linossier and Lemoine: Normal Toxicity of the Food, Archives des Maladies de l'App. Digestif, Paris, April, 1910, No. 4.

fore, to replace wasted body elements in a shorter time than any other kind of nutriment. On the other hand, he points out that it forms uric acid; that those who do without it are seldom troubled with arteriosclerosis or obesity; and that persons addicted to much meat are liable to diabetes and to nervous disorders.

Dr. David Paulson of the sanitarium at Hinsdale, Ill., has kindly written me the following letter:

"Have you had your attention called to the work of Dr Schiff and others who demonstrated that when the thyroid gland was removed from the dog, as a rule the animal developed convulsions after a few days and subsequently died? But later Dr. Leo Breisacher of Detroit, Mich., formerly assistant of Professor Munk of Berlin, demonstrated conclusively that such animals could be kept alive if they were debarred from a meat diet. And later, Dr. Bloom of Germany demonstrated that the thyroid among other functions is a disintoxicating organ, the function of which is to destroy the poisonous products formed by the decomposition of protein food substances. Now, this is the practical point: In a large number of people past middle life, especially those who have suffered more or less from past chronic diseases, there is already a partial atrophy of the thyroid gland. For such persons to persist in the use of flesh meats, and especially in excessive flesh meats, they are putting themselves in almost the condition that the dogs were who could not live when fed on meat when their thyroids were removed."

In looking over other literature, I find that Dr. Windscheid[6] of Leipsic, in treating of the prevention of diseases of the nervous system through proper diet in childhood, says in part:

"The rest of the child's diet should be a mixed one with but little meat, not that it is necessary to bring children up as vegetarians, although in childhood an exclusively vegetable diet is to be preferred to a diet containing an excess of meat, which is so common in our civilized life."

Dr. B. P. Watson,[7] writing in the *British Medical Journal*, states his belief that the decrease in the birth-rate in Great Britain is due to increased diet of meat. His conclusions are drawn from experiments made on rats.

In a recent letter from Dr. J. H. Kellogg of Battle Creek, he says:

"We use no meat at all at the Battle Creek sanitarium. We have a family here at the present time of nearly 2,000 people who eat no meat. We use no extracts of meat and nothing of the sort in any way, shape or manner."

Dr. Kellogg finds that his patients get along nicely toward health on a low protein diet with the meat left out entirely. A number of them continue with this diet when they reach home and report very good results. Among other interesting facts, he finds that a low protein, meat-free diet economizes the work of the kidneys to the extent of more than 50 per cent.

Rutgers[8] determined that the animal protein could be entirely replaced by vegetable protein, without any appreciable change in the nitrogen balance.

You will recall that Prof. Irving Fisher[9] of Yale has made some extremely interesting endurance tests. These experiments included athletes who ate flesh and athletes and sedentary people who did not eat flesh. Those who will read Fisher's account of this work will find his tabulations most illuminating. In summing up he makes this comprehensive statement:

"The large flesh eaters showed far less endurance than abstainers, and even when the latter were leading a sedentary life."

Tests, somewhat along the same lines, were carried out at the University of Brussels. The students there who ate flesh and those who did not were pitted against each other in endurance tests, and those who ate no meat won by 50 to 200 per cent.

There is a strong, comely, robust class of industrious people living in Canada who do not eat meat.

In Germany the long-distance walkers who do not eat meat have so frequently won than Von Noorden has said:

"In Germany in these competitive races the vegetarian is ahead of the meat eater."

I wish time permitted me to quote in full a letter I had the pleasure of receiving from Dr. T. D. Crothers of Hartford, Conn., one of the most prominent authorities in the country on the subject of alcoholism. He says in part:

"The spirit- and drug-takers as a rule are great meat eaters, and consequently have toxemias. In the treatment, this condition must be removed. A meat diet is always a stimulating one. . . . We insist that meats should be used very sparingly and in many cases must be cut out altogether. Vegetable proteids can be substituted and the results are very marked. . . . A meat diet is very often both an active and contributory cause to spirit and drug taking. It is always followed by deranged metabolism, and unless the person is an active muscle worker and sweats

6. Windscheid: The Prevention of Disease, ii, 517.
7. Watson: Influence of Excessive Meat Diet on Fertility and Lactation, Brit. Med. Journal, Jan. 26, 1907.
8. Friedenwald and Ruhräh: Diet in Health and Disease.
9. Fisher: The Influence of Flesh-Eating on Endurance, Yale Med. Journal, March, 1907.

very freely, elimination is impeded and toxemias provoke the desire for spirits and drugs. . . . Many of our patients become vegetarians from actual experience and not from theories, and make most satisfactory recoveries. . . . I have never seen a case in my long experience of spirit or drug taking which made a good recovery that continued the use of meats excessively. All cases find greater improvement from cutting off the meat in whole or in part, and supplying the proteids from nuts and cereals. The best judgment of practical men confirm this, and you can make very strong statements along this line and be supported by both theory and experience."

Practically the same opinion is held by Mrs. Booth of the Salvation Army in London. Her secretary writes me that they do not know of any unsatisfactory results which have been produced by the non-meat diet, and that they have found such a diet distinctly helpful in their homes, especially in their homes for inebriates. In one of Mrs. Booth's[10] articles she says:

"Particularly have I been impressed and gratified by the good results of the careful dietetic treatment in our two homes for women victims of inebriety. It is now six and a half years since the fleshless diet was introduced into the older of the two homes; the second one has been vegetarian from the day of its opening, and, indeed, flesh meat is a diminishing quantity in all the institutions under my care."

She also makes this strong statement:

"The chief hope of all food reformers lies with the rising generation. If parents can be induced to bring up the children on a pure and simple fruit and vegetable diet, and for their sakes to abolish all that is harmful from the home, I think the need for inebriate homes and all other apparatus for rescuing the human wrecks will diminish and finally disappear."

In another of Mrs. Booth's[11] papers she says:

"Staff-Captain Hudson attaches vast importance to the diet, which is strictly vegetarian. The warden has noticed that animal food increases a craving for stimulants."

Lastly comes the United States Department of Agriculture[12] with its good findings that "there are rough indications that meat constituted about one-half of the nutritive elements of the dietary of half a century ago in terms of both protein and energy; at present the fraction seems to have fallen to one-third or thereabouts." This was one of the 1907 bulletins issued by the Department and lately sent to me. With it came a letter of transmittal saying: "You will find in this publication a large amount of information relating to meat production and consumption. It may be well to bear in mind, however, that subsequent to the issuing of this bulletin the meat production of this country has declined and also the consumption."

From the esthetic and religious standpoints there are many who do not look with pleasure on the idea of eating corpse food or of unnecessarily destroying God's weaker creatures.

From the present trend of thought it would seem not unlikely that meat will come to be finally classed in the same general category with tea, coffee, alcohol and tobacco: that is, with things which are not taken for the purpose of bettering the physical, mental or spiritual condition, but taken simply and only because their taste is good and they temporarily produce a comforting sense of stimulation and well-being.

DISCUSSION

Dr. S. E. Earp, Indianapolis: I note that the French physicians have been quoted here to-day, and as it seems to be necessary sometimes to follow good men in what they have done, I naturally feel that it is apropos to call attention to an item in our morning paper. We recognize the fact that whenever an individual attempts to antagonize the idea of a vegetable diet they quote France. I do not know any particular reason, other than that the French people have been given credit of being enormous meat eaters. It is said that in France 70 per cent. of the people eat meat; that in 1909 the horse-flesh slaughter-houses numbered 48,779, and that therefore they depended on horse-flesh, perhaps not because they could not get other meat, but from the fact that it is said by those who know that the best piece of meat for the table is horse-flesh. I have had no particular experience concerning it, but I remember there was much antagonism during the Spanish-American War to the horse-flesh that was served.

But we must take into consideration that it is not meat and meat alone, but the various kinds of meat and their influence on the individual — and this is recognized sometimes by those who are not physicians. For instance, I call to mind that Keene, the actor, has been quoted as saying that whenever he took the part of a murderer in his plays, he ate beef; whenever he took the part of a tyrant, he ate pork; and whenever that of a libertine he ate mutton.

I furthermore recognize that the speaker here took a moderate view. He believes in eating meat in moderation — I thought possibly his make-up was slightly tinged with vegetables — and I can give full endorsement to what he said — that

10. Booth, Mrs. Florence E.: The Treatment of Inebriates by Diet.
11. Booth, Mrs. Florence E.: Are Homes for Inebriates Beneficial? "The Social Gazette."
12. Dept. of Agriculture: Meat Supply and Surplus; Bureau of Statistics, Bulletin No. 55.

moderation should be asked for, and in handling this question I believe we should recognize that there are certain principles to be taken into consideration. First, we should know something of the chemical composition of meat; something about its structure, and, furthermore, the way it acts in the intestines and stomach, and then possibly, third, its nutrient value, and I do not think we could do better than to take as a last consideration the cost price.

Now, it is evident that the only article of diet that is going to sustain the individual indefinitely is meat. I say this because it cannot be controverted. Furthermore, as to the nutrition in meat, let us take a pound, and possibly three-fourths of a pound of meat is water and one-fourth proteids. Then if we think of the relation of the fat, that when fat enters the system it does not displace proteids, it displaces water, and therefore we have an absolute gain as to nutrition. I might say furthermore as to the cooking of meat — and that would bring up the question of contamination — that the cooking of meat increases its nutrient value, because it lessens the amount of water, for one reason, and because also of the question of contamination. De Croix even goes so far as to say that the rigid and undue inspection that we sometimes have in some of our large markets renders it impossible for the poor to eat meat. Of course we know that the reason for this rigid inspection is that we may not have diseased meat placed on the market, but De Croix says that diseased meat, when cooked, is wholesome.

So far as the economic value is concerned, it is evident that we eat too much meat because it is popular to eat it — it is a fad to eat it. I believe a mixed diet is the diet for all of us. I believe a child 4 years old should not have meat but once a week; a man should have meat once a day. It will cause a gain in weight, it digests, it does not injure the mechanical resources of the stomach, and it is not harmful in any mixed diet. Now to show that I am not an extremist, it is not a perfect diet by any means. When you cook meat you make it less digestible, but you make a better nutrient. The reverse perhaps is true of vegetables. But meat, not being a perfect diet, needs to be combined with other forms of nutriment, and so I make a plea for the mixed diet, and not a great quantity of meat to the exclusion of other foods.

Dr. Howard, (closing): I would like to bring out this point: The discussant, Dr. Earp, is right in this respect, that I believe for those who are eating a great deal of meat it would be best to reduce it, but I believe as people take less and less meat they find they can reduce the amount until finally they do without it entirely. I would not advise anyone to suddenly leave off meat, but, I believe it has been the experience of many that as you gradually reduce your meat diet you increase your well-being, you increase your efficiency, but if you do it quickly you lose your stimulant, just like alcohol and tobacco. But if you leave it off gradually you will find you will finally not miss it, and be glad you left it off.

There is a difference between those who believe, like myself, in a meat-free diet, and vegetarians. The strict vegetarian excludes milk and eggs. I only exclude meat, but still retain milk and eggs and cheese. I am not a vegetarian, but I am in favor of a no-meat diet.

CONSERVATION OF HEARING *

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Conservation of the natural forces of the earth is a foremost thought of the hour. While the material wealth which is represented by water, wood, earth, stone, coal and a multitude of other notably valuable objects are first in the minds of those who talk most of conservation, signs are not lacking that an awakening is on us as to the real value of human life and perfect health. Indeed, it is already realized that proper and efficient conservation of the wealth of a nation is impossible unless at the same time there is rational conservation of the health of that commonwealth. There seems at present little doubt but that in the near future the question of eugenics, public health and hygiene will stand first in the curricula of medical schools, and that the people through their government will more and more desire prevention rather than cure of bodily derangement.

It is an old assertion that the chain is no stronger than its weakest link. Following the same line of thought we may say that the health of a given individual is no greater than that represented by the physical condition of the weakest organ. Judged by this standard the majority of mankind are in a measure degenerate. Examples of such deficiencies are everywhere in evidence, while physical perfection must be sought for to be found. Because of these facts both the home and the state suffer from lack of highest individual efficiency.

Loss of hearing constitutes one of these defects. While a few brilliant examples of a highly useful citizenship of the partly or wholly deaf may be cited the fact remains that, as a class, deaf individuals are handicapped in nearly every walk in

* Read before the Indiana State Medical Association, at Indianapolis, Sept. 29, 1911.

life and that home and state suffer proportionately. Deafness, being a disease commonly free from suffering or deformity, excites little sympathy from the public and not enough thought and action on the part of those whose life business is to eradicate disease. But these facts do not detract from the personal sorrows and difficulties of the deaf. Those who so suffer, but who are in affluent circumstances, miss much of the pleasure due them in their social world, while those who must earn a living for themselves and family lose not only what social joy should be theirs, but too often that which is in every way more deplorable, the best opportunities in life to exercise and use their abilities. It is not necessary here to do more than merely point out the difficulties confronting the partially deaf when making effort to secure employment. Strong mentality, good character, muscular strength are not sufficient when the man, partially deaf, seeks a position of responsibility anywhere in which there is danger to life, either of the employed or public. A pretty face, fine form, sweet voice and pleasant manners are worth little to the partially deaf girl who desires a position in the shop where she is in every other way bountifully qualified to succeed.

While it is true that the partially deaf seldom become vagabonds, crooks or objects of charity, it is equally true that their opportunities for pleasure and profit are minimized and that they are unable to serve either themselves or the state in a full capacity.

It is not, however, of the deaf or partially deaf that I desire to speak, but of those likely to become so, and to make some inquiry as to whether or not with our present knowledge of the causation and treatment of disease we are able to lessen, or possibly entirely prevent deafness in the oncoming generation. I have entertained the belief for a long time, and this belief has finally grown into a positive conviction as my opportunities for observation have widened, that much of the deafness as it exists to-day is entirely unnecessary; that it could have been prevented by a closer and more intelligent attention to the ear on the part of the profession, and by a more responsive cooperation on the part of the parent, or those having control over children in the first decade of their lives. A large percentage of all who are deaf to-day are clearly victims of a do-nothing policy on the part of those in whom they placed reliance, the family physician. Many of these cases were advised in very early life to be allowed to outgrow their deafness, and, in that simple trust which characterizes the relation of patient to physician, they followed the instruction without further question, even to the point of irreparable loss of hearing or total deafness. Judged by the frequency with which the statement is heard from the patient that, as a child, the doctor had advised him to let his deafness alone and that he would outgrow it, and by the widely separated parts of the country from which these patients come, it is fair to assume that in the recent past such advice to the deaf was considered good, and was often given. It is my belief that this advice has been the indirect cause of more deafness than all other causes combined. Such wicked and ill-advised statements are still sometimes made and the tradition that there is truth in the outgrowing theory will not down despite the fact that there is absolutely no evidence to support it. The first and perhaps the most rational step in an effort toward conservation of hearing, is, therefore, to eliminate the evil effects of this belief, to brand the assertion as false and ignorant teaching, and to make intelligent effort on all proper occasion to demonstrate the value of a more rational management of children growing deaf in early life. The delicate mechanism comprising the organ of hearing is extremely sensitive to the effects of disease, and it is probably true that no other organism is more quickly and permanently impaired, when once diseased, than is the ear. While, therefore, the innocent child is permitted, if its physician is ignorant, careless, indifferent or lazy, to outgrow an aural ailment, it is, with nearly the same certainty that the tide ebbs and flows, or that the sun rises and sets, growing into, and not out of, the aural difficulty. *Conservation of hearing, then, to be most effective, must begin early.*

It has been said that to produce a highly moral and intellectual people the process must begin several generations back. Somewhat similarly it may be stated that, in order to best conserve hearing, well-directed efforts must be made to do so before there is an actual loss of that function; that is, before there is an actual disease in the ear itself. It is the opinion of most otologists that disease of the middle ear seldom starts in the ear *per se*, but on the contrary has its inception, almost without exception, in the aural environment, and spreads to the ear from the latter place. Any rational attempt to conserve hearing must therefore deal intelligently with the neighboring structures of the ear, rather than with the ear itself. The nose, nasopharynx and pharynx of the child furnish the pathologic conditions, extension from which to the ear, through the Eustachian tube, produce by far the greatest

number of aural ailments. We may expect departure from normal hearing in any child very much in proportion to the amount and severity of existing disease in these neighboring cavities, which are, in effect, integral parts of the auditory apparatus.

Assuming that at birth the nose, nasopharynx and pharynx are normal, and that it is subsequently possible to maintain a healthy state in these cavities, it is my belief that, barring accident and toxic effect of the general infectious diseases, the ear will remain practically normal throughout life. It is a well-established fact, however, that the pharynx and nasopharynx of the child are frequently diseased in the earliest period of life, and just here lies the danger to the ear, and the opportunity to conserve the hearing.

How do diseases of the upper air tract affect the ears? Principally in two ways: first, by mechanical obstruction on the part of the hypertrophied adenoid, tonsils or other growth, and second, because of the constant presence of infective bacteria in the immediate neighborhood of the ear in all children or others whose throats are diseased. The presence of an hypertrophied adenoid, and only to a lesser extent of hypertrophied tonsils, produce mechanical difficulty in the normal passage of air into the nasopharynx, and of the normal action of the system of throat muscles, one of whose functions is to open the Eustachian tubes in order to properly ventilate the middle ear. It is as necessary to the normal function of the ear that air find ready entrance and exit into the middle ear as it is that air shall be inhaled and exhaled from the lung, for the function of the ear is immediately interfered with when free admission of air to the drum cavity is denied. Moreover, the presence of obstructive growths in the pharynx hinders the venous circulation of both throat and ear and sets up a passive congestion in the latter which makes infection and resulting inflammation easy in the presence of pathogenic bacteria. And such bacteria are always present. Obstructive growths in the epipharynx produce by their irritating presence an overstimulation of all the mucous glands with the result that large quantities of ropy mucous are secreted. This, because of the difficulties met by the patient in its expulsion becomes stagnant and bacteria laden. The deep fissures which separate the lobes of an adenoid, and which constitute the several crypts of the enlarged tonsils furnish an ideal culture field for the propagation and growth of numerous disease germs which sit, as it were, at the very gateway to the ear ready to invade, infect, impair and perhaps destroy the aural function.

Everyone is now greatly concerned about the possible infection of food, air or water from outside sources, but few seem to realize, or to care if they actually know, about the possible sources of infection that are so often going on within. The presence of an hypertrophied adenoid or tonsils undoubtedly furnish, at times, a source of infection equally as dangerous to the individual health, or to some special function, as that encountered by the same individual from foul air, polluted water or impure food.

Viewing the chief causes of aural disease as due to an obstructed and diseased environment, the problem of conservation of hearing becomes much simplified. It is not at all unlike the problem of securing better general health by improvement of environment in which the individual or community lives. Public health has been vastly improved by ventilating dark places and eradicating general foci of infection. The hearing of the oncoming generation may be vastly conserved by providing for free ventilation of the tympanic spaces of every child's ears, and by breaking up and thoroughly eradicating the foci of infection that find so convenient a breeding place in diseased states of the nose, nasopharynx and pharynx of the child: more simply stated, in the complete removal of all hypertrophies and new growths. This cleanup of the foul places that so often exist in the throats of children cannot be postponed indefinitely if conservation of hearing is sought. Ideal conservation would demand such a cleanup early, before the hearing is noticeably affected, because the chances of improvement decrease in the ratio of time elapsed since the oncoming of the aural affection. In view of what may be accomplished by early attention to the upper air tract of the child it seems eminently worth while to bestow attention on the defects of this region at a time when the efforts are undoubtedly worth while. By so doing future deafness would be in great measure prevented.

DISCUSSION

Dr. D. W. Stevenson, Richmond: The paper has been an excellent one, and I believe it represents a factor in our modern hygienic life which should be given more attention. Dr. Barnhill is undoubtedly right in saying that a great deal of suffering in life and among a large number of people is caused by lack of attention in youth and childhood to the little things that would have prevented the loss of hearing. People who lose their hearing are more apt to commit suicide than those who are blind, and while some of us would rather lose our hearing, yet experience really shows that it is a greater loss to lose hearing than sight.

The ears are hidden in the head, and I know of no organ in the human body that is so carelessly treated as the ear. In a family where they would not under any circumstances permit an ulcer of the eye to go unattended, they will permit a running ear. It is a disgrace and shame to permit a running ear. If one of your children has a running ear you ought to lie awake at night until that running ear is stopped. Better still, if you had had the child's adenoids and tonsils removed that child probably would not have had a running ear.

Let me say a word or two about the infection of childhood. I think doctors often are very careless concerning treatment, and especially the after-treatment of cases of measles and scarlet fever, where perhaps they call only once or twice when they ought to see the patient day after day, or at least long enough to insist that the child does not go to school until all danger of a suppurating ear is past. I believe a case of measles or scarlet fever is one of the most dangerous cases as far as the possibility of having ear troubles is concerned, from the fact that it is often thought by the parents not necessary to have the doctor come for these supposedly simple diseases. They are not simple diseases. I believe they should be rigidly quarantined, and that the schools should be kept from infection. I believe it would be well if every child with measles or scarlet fever were kept out of school for at least six weeks.

The ordinary use of the handkerchief by the child is a source of danger by aiding in the spread of infection, and I hope the day will come when the handkerchief will not be used. The Japanese plan of a paper handkerchief which can be burned is a thousand times better. A child with a cold ought to be kept in the home, and placed on a reduced diet with sugars cut out.

Dr. G. F. Keiper, Lafayette: There is a side that we must take notice of with reference to a defect of hearing. Whenever you have a child that has ear trouble, suspect adenoids, and immediately put your finger up behind the palate and see if you do not feel them. This is better than putting a mirror in the mouth. If adenoids are there they ought to come out, together with large tonsils at the same time. We heretofore have supposed that the mouth of the Eustachian tube is ordinarily closed, but there has been devised a little instrument whereby it is possible to illuminate that whole field and examine the condition of the Eustachian tube. I have had this instrument myself about two months, and in nearly every case I find the mouth of the Eustachian tube is open instead of closed as we thought. Now if there is infection in the pharynx, with an open Eustachian tube, you can see how easy it is for infection to get into the ear, especially if there be obstruction in the way of adenoids accompanied by retention of infectious secretion.

I would also like to mention another set of instruments — the best instruments I have found up to the present time — and they are the adenoid curettes that Dr. Barnhill has gotten up. I have been using them since they were first brought out.

There is still another point in connection with the subject of this paper which I wish to mention, and that is the development of the mind and physical make-up of the child, especially the development of the mind. We get the most of our knowledge through our eyes and ears, and there must be something about adenoids that interferes with the working of the child's mind in such a way that the child with large anedoids does not do so well as the child without such things. The removal of such growths immediately produces a wonderful change so far as mental and physical development are concerned. In other words, we have a psychologic feature to consider, as well as a physiologic and a pathologic feature. And whenever you find adenoids in the child or enlarged tonsils, it becomes your immediate duty to remove them yourself, or if you do not want to do it, send them to someone who is well equipped for that work.

McEwen of Glasgow made the statement, in a book he wrote a number of years ago, that a person with running ears might just as well go around with a charge of dynamite in his head.

Dr. J. L. Thompson, Indianapolis: The great trouble is that people do not come to the doctor until there is sclerosis of the middle ear, and then it is too late. Often from a cold the Eustachian tube will become closed up, and then possibly by blowing the nose the patient will be relieved. In a case of this kind the child should go to someone equipped for the work and have the cause of this trouble removed. These eye and ear cases demand the services of a surgeon in a majority of cases, but the general surgeons do not care so much about them; it is the abdomen they care about. I was very glad when I could turn my ear cases over to those who make them a special study.

Dr. Helene Knabe, Indianapolis: I am not an eye and ear specialist, but I am interested in the education of the people. It is very nice to hear papers on these subjects, but what we ought to do is to tell the people themselves. We physicians have to wait until the people come to us and show us these children. Let us tell them that they should bring the children the minute they have a cold, or if the child has any trouble in sleeping, it should be brought to us so that we may determine the nature of the trouble, perhaps before it is too late to do the case any good.

I wish to entreat you to do more for the education of the mother and father, and then we shall be able to do the children some good.

Dr. J. F. Barnhill, (closing): I said very little about treatment. What I meant to emphasize was the conservation of hearing, and that conservation is impossible after the damage is done or well begun. There is a time in the history of nearly every ear case when it can be cured. That time is not many days after the ear disease begins; the best time is before it begins. You put the healthiest individual in this room in an environment that is foul; if that individual drink polluted water and eat bad food, he will become diseased. Nearly all ears are born healthy, but if they are born in an environment that is absolutely unhealthy, the environment will put the ear out of business.

Since several of the discussants have mentioned a little of the treatment, I want to say a word. There are thousands of children who are apparently quite well during the summer months when the weather is warm and comparatively dry. The first frost in the fall, or the first cold morning, the children go to school with a cold in the head. A cold in the head means in nearly every instance an obstructed upper respiratory tract. That case will almost certainly develop some hearing trouble before the age of ten. At the age of ten nobody can cure the case if it has been going on for some years. At the age of five any properly trained aural surgeon can cure the child. Deafness can be eradicated and the cure made absolute. It is time for physicians to stop telling people they can outgrow anything. Stop it, gentlemen. It is false, it is malicious, it is careless, it is uneducated, it is not twentieth century talk. Stop it!

THE INCIDENTAL RÔLE OF STREPTOCOCCUS INFECTION IN PERNICIOUS ANEMIA

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The more carefully we consider the field of general pathology in all its aspects, the more conspicuous and dominant becomes the rôle of the various microbic infections. The so-called specific diseases, acute and chronic, are of course primarily dependent on such infections. These alone are probably responsible for three-fourths of the world's total mortality and morbidity. Aside from these, however, there are a number of pathogenic microorganisms very widely distributed, the clinical manifestations of which are bizarre in their character and lack that degree of regularity which characterizes the so-called specific diseases. Such microorganisms are the various streptococci, staphylococci, pneumococci, colon bacillus, etc. They are found nearly everywhere in nature, and are always ready under conditions of lowered general or local resistance to produce their pathogenic results. If a local traumatism occurs the tissue cells are attacked by the pathogenic organisms and a simple inflammatory or suppurative process may occur as a part of the reactive phenomena. The battle may be indecisive. The microorganism may win a local victory; may establish its fortifications and make them impregnable to assault; but it may not be able to extend its conquests beyond the so-called "focus of infection." The antibodies and phagocytes can prevent the spread of the infection but cannot destroy it.

As time goes on the fortunes of war may change. The microorganism, possibly running short of pabulum by reason of the cordon of fibrous tissue thrown out around it, or supersaturated with its own excrements, becomes degenerate and either succumbs or remains quiescent. On the other hand, because of a lowered tone of general health there may be an insufficient supply of the side chains which form the antitoxins, and the bacterial toxins may combine with tissue cells, producing more or less serious damage of the latter. The capacity of the cells to form other antibodies such as agglutinins, lysins, and especially opsonins, would almost certainly be thus impaired, interfering with phagocytosis and bacteriolysis by which most microorganisms are destroyed.

If this weakening of the immunity processes of the body is carried far enough a certain number of bacteria will retain their viability in the circulating fluid for a variable length of time and we then have a bacteremia in addition to a toxemia. The line of demarcation between a blood state which should be labeled a toxemia from bacterial toxins, and one which can be clinically recognized as a bacteremia is not sharply drawn, and is rather one of degree. From probably all foci of infection bacteria enter the blood in considerable numbers, but ordinarily are quickly devitalized and then destroyed. It is only when they retain their vitality long enough to accumulate in the blood in considerable numbers that they can be obtained clinically and cultivated in suitable mediums. The quantity of blood taken for cultures is ordinarily 1 to 5 c.c. On a basis of 6,000 c.c. of blood (Bischoff estimate 7 to 9 per cent. of body weight), this would be from $^1/_{6000}$ to $^1/_{1200}$ of the total volume of blood. It will thus be readily seen that a negative result would not disprove the existence of a considerable number of viable organisms in the blood, while a positive result, assuming due precautions for the avoidance of contamination, always means a

great deal. It can only happen when either the immune bodies are weak, the virulence of micro-organisms very great, or the dosage extraordinarily large. It must not be forgotten that microbes thus obtained from the median cephalic vein, the one usually chosen for clinical purposes, unless entering the venous radicles of hand or forearm (an assumption not at all tenable in the absence of an obvious local pathology) must have retained their vitality through at least one, and very possibly many complete revolutions of the blood, both systemic and pulmonary. During this time they have been constantly subjected to such antibodies as the blood-plasma contains; they have passed relatively slowly through two capillary systems where phagocytes are probably very numerous and have their best opportunity to destroy them; and if they have retained their vitality through all these vicissitudes I think it not too much to say that it is always a matter of considerable if not serious pathologic import.

For several years I have been applying these general facts and principles to various types of diseases, making blood cultures in a somewhat routine manner whenever bacteremia was suspected, which would include practically all febrile cases whether acute or chronic, and some that were not febrile or, to be more accurate, were not pyrexial. Pernicious anemia appeared among the diseases offering an inviting field for studies along this line. The therapeutic possibilities of autogenous vaccines furnished an adequate motive. I had for years observed, what is a matter of common knowledge, that in the latter stages, or during the exacerbations, slight or moderate fever was exceedingly common. Since taking this matter up two or three years ago seven cases of anemia having the well-known characteristic aspect of the so-called cryptogenetic pernicious anemia have fallen under my observation. A brief epitome of these cases follows:

Case 1.—E. Z., physician, aged 53, first seen April 7, 1908. Usual history of malaise, etc. Had been operated for gall-bladder disease four years before. Hgb., 40 per cent.; R. B. C., 864,000; color index, 2.4; normoblasts, megaloblasts, marked poikilocytosis; temp., 99-100; liver and heart enlarged. Urine: sp. gr., 1.020; no albumin, no sugar, no indican. Case lost sight of; died possibly a year later.

Case 2.—Mrs. J. G., ref. by Drs. Ely of Plymouth and Porter of Ft. Wayne. First seen Feb. 11, 1909. Usual history, heart and liver enlarged, slight jaundice from intrahepatic cholangitis. Hgb., 55 per cent.; R. B. C., 2,370,000. Index, 1.2; poikilocytosis, normoblasts and megaloblasts. Stomach contents: Analysis showed achlorhydria. Urine: sp. gr., 1,015; no albumin, sugar or indican. Temp., 99-100, exceptionally 101. Blood culture showed streptococcus. Autogenous vaccine made, patient treated with this and antistrep. serum in large quantities for weeks and also with injections of cacodylate of iron and general hospital regimen. Patient slowly improved after six weeks of doubtful progress. Streptococcemia and fever disappeared. Hgb., 85 per cent. Patient dismissed with relative recovery. Relapse about one year later, under observation of Dr. Osborn of Laporte, Ind., which proved fatal. Blood culture taken by Dr. Osborn and sent to me several days before death proved sterile.

Case 3.—Mr. A. S., aged 55, ref. by Dr. Ames of Ada, Ohio. First seen April 11, 1910. Usual history, heart and liver enlarged. Hgb., 40 per cent.; R. B. C., 1,500,000; index, 1.3; poikilocytosis, macrocytes and microcytes; normoblasts; no megaloblasts found. Stomach analysis showed achlorhydria. Urine: sp. gr., 1,029; negative. Temp. normal. Under usual treatment, relative recovery. Hgb., 90 per cent; dismissed and remained well for about a year. Returned to hospital March 15, 1911. Blood findings about the same as on the first entrance. Temp., 97.4-100.4. Blood culture showed streptococcus Autogenous vaccine administered with routine treatment. Patient grew rapidly worse; died April 8.

Case 4.—Mr. D. E., aged 46, first seen Aug. 16, 1910. Usual history, with two previous relapses, heart and liver enlarged. Hgb., 75 per cent.; R. B. C., 2,000,000; index, 1.8; microscopic findings lost. Stomach analysis showed achlorhydria. Urine: sp. gr., 1,010; no sugar, albumin or indican. Q. in twenty-four hours, 1,740 c.c. Temp. normal (high only once, 99.6). No blood culture. Patient dismissed September 10; relative recovery. Present condition unknown.

Case 5.—Mrs. J., aged 55, ref. by. Dr. Knott of Plymouth, Ind. First seen Dec. 21, 1910. Usual history; heart slightly enlarged, liver normal. Hgb., 55 per cent.; R. B. C., 1,368,000; index, 2.1; normoblasts and myelocytes present; no megaloblasts found. Stomach contents showed achlorhydria. Urine: sp. gr., 1,018; no albumin, sugar or indican. Temp., 99-100. Blood culture showed streptococcus. Autogenous vaccine with intramuscular injections of cacodylate of iron and usual hospital treatment administered. Fever and streptococcemia disappeared; patient discharged March 8, 1911, relatively recovered; hgb., 90 per cent. Present condition unsatisfactory, though blood condition is good; hgb., 85 per cent.; R. B. C., 3,090,000.

Case 6.—Mr. G. R., aged 49, ref. by Dr. Pfeiffer of Lima, Ohio. First seen March 8, 1911. Usual history; heart and liver enlarged; hgb., 40 per cent.; R. B. C., 1,500,000; index, 1.7. Stomach contents lost. Urine: sp. gr., 1,025; no

sugar, albumin or indican. Temp. usually normal. Blood culture not taken. Patient made a relative recovery under usual treatment. July 15, 1911, hgb. 80 per cent.; R. B. C., 3,680,000; index, 1.1.

Case 7.—Mr. J. C., seen March 31, 1911. Usual history; enlarged heart and liver, some jaundice. Hgb., 30 per cent.; R. B. C., 1,150,000; index, 1.3. Had moderate fever. Blood culture showed streptococcus. Patient's condition so bad vaccine treatment not instituted. Patient died about a week later.

It will be seen that five out of the seven cases had some fever. In four of them streptococci were found. In Case 1, which had a fever, if a blood culture had been taken a bacteremia would probably have been found. Omitting this case, a streptococcemia was actually demonstrated in every febrile case. No other organism was found in any case. In one of the cases which showed a streptococcemia (Case 7) the patient's condition was so obviously hopeless that nothing was attempted. In the remaining three cases autogenous vaccines were used, and in one (Case 2) antistreptococcus serum was also used for a long time. In two of these cases there is reason to believe that the vaccine treatment was instrumental in overcoming the streptococcemia, and with it the associated fever. In one, which was close to a fatal termination, no beneficial effect could be seen. Four of the seven patients are known to be dead.

While the number of cases is not large, some provisional conclusions appear justifiable. It is certainly interesting to note that streptococci were the only organisms found. Whether this would prove to be true with a large series of cases remains to be seen. Their frequent presence may be due to the fact that among the pathogenic microorganisms of the intestinal flora these retain their viability and virulence most completely. They might thus make their entrance into the portal circulation most easily, and afterward most effectually resist the action of the antibodies, weakened by the blood disease. It is probably because of impaired immune bodies that the bacteremia becomes possible, only toxins circulating up to this time. The relationship of the streptococci found in these cases to the real pathology of the disease raises some very interesting questions. It is probably accidental. But even if this is true its importance is very great. The toxins produced by certain strains of streptococci have been shown to be distinctly hemolytic. If this is true, increased hemolysis becomes an important auxiliary etiologic factor. Furthermore, if the view which apparently prevails, viz., that excessive hemolysis from an unknown cause constitutes the essential basis of pernicious anemia, the possibility of an obscure streptococcal nidus gradually pouring the toxins into the circulation and playing a conspicuous rôle in the etiology of the disease is well worth serious consideration. This is only a suggestion, and not the enunciation of a theory.

Finally the present position of vaccine therapy makes the recognition of bacteremia always of clinical importance. Wright, who at first did not believe generalized infections amenable to vaccine therapy, finally as a result of more extended study and observation reversed his position. There seems to be little doubt that dead bacterial substances injected into the circulation even with a bacteremia has a distinct antigenic effect, and stimulates the cells to the production of amboceptors and other antibodies, thus increasing the power of the organisms to overcome the infections. It should be stated that the size and frequency of the dose must be carefully regulated, otherwise more harm than good will result.

The following conclusions concerning the streptococcic infection found in this series of cases of pernicious anemia, though probably needing more extended observation for their complete verification, appear to me justifiable:

CONCLUSIONS

1. Streptococcemias and possibly other bacteremias are not infrequent incidents in pernicious anemia.

2. The streptococcemia probably bears no relation to the real pathology of the disease, the microorganisms entering the blood stream most frequently from the intestines, as clearly shown by Adami, especially with reference to colon bacillus, and existing there because of the lowered power of the immune bodies.

3. The bacteremia is clinically very important, the toxins causing fever, and very possibly frequently being the usual cause of the slight fever so common in the course of pernicious anemia; the other bacterial toxins and possibly metabolic toxins play an important rôle.

4. The toxins are also hemolytic, becoming auxiliary etiologic factors in the disease.

5. The streptococcemia is sometimes amenable to treatment by autogenous vaccines derived from cultures made from the patient's blood.

6. Blood cultures should therefore be made in all cases of pernicious anemia in which elevation of temperature, even though slight, occurs.

7. The possibility of streptococcal or other hemolytic bacterial toxins slowly entering the blood from an obscure nidus and playing a prominent auxiliary rôle in the etiology of pernicious anemia is worth careful investigation.

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EDITORIALS

PUBLICITY TO MEDICAL ABUSES INCREASING

If we mistake not, a very good sign of the times in the progress of exposure for medical evils, is an article in the *Literary Digest* of Feb. 24, 1912, on the subject of "Premature Specialism," based on a recent editorial in *American Medicine*. The writer calls attention to the fact that the profession is filling up with young college graduates with a few weeks' training in some postgraduate clinic, European or otherwise, who thereupon set themselves up as specialists thoroughly competent to treat eyes, noses or throats in a most efficient way.

To quote: "Every capable surgeon knows only too well the harm that is being done by premature surgeons, men who have no more moral right to be practicing major surgery than a carpenter. The day is coming, and God speed it, when no man will be allowed to perform a major operation until he has qualified as a surgeon. In the meantime the evil goes on, and can any one doubt that all medical practice suffers by reason of the failures that essentially attend the work of incompetent surgeons and specialists?"

The author attaches blame both to the medical school which does not distinguish between certificates of completion of courses and certificates of individual merit, and to the present pernicious system of state licensure whereby any candidate who answers 70 to 75 per cent. of the questions asked him is granted leave to perform any major operation in the whole domain of surgery.

But that the public must shoulder its share of the responsibility is shown by the following paragraph: "Finally, the principal contributory factor in the situation that has made premature specialism possible is the lack of discrimination on the part of the people. To the average person a doctor is a doctor. Not a moment's thought or investigation have they given to his intelligence, his education, his special training, or experience. Let the people cultivate the custom of selecting their physicians, their surgeons, and their specialists on the basis of education, experience, and efficiency, using due and proper care to ascertain these details, and the quacks, charlatans, and premature specialists will promptly disappear. Unfortunately, a great many people will go on trusting themselves in the hands of the surgeon or specialist who strikes their fancy, irrespective of training or experience."

Here we might add that it is this very credulity of the people that has permitted the fee-splitting, mushroom surgeon to spring up and flourish. And he will probably continue to flourish a while longer until the people arouse from their lethargic state and demand the same honesty and fair-dealing at the hands of the medical profession that they expect from one another. In the present state of medical graft, instead of meriting this high ethical plane to which the public is willing and glad to elevate it, this element prefers to descend to the level of the pawnbroker or commission man in business, but whose wares instead of being junk or produce, consist of human lives.

The time has come when that portion of medical ethics which demands mutual protection among the members of the profession must give way to that phase of moral ethics which treats dishonesty according to its just deserts. If a man borrows our horse and sells it for the most he can get for it, is he anything more or less than a thief? Then what better is the man who is lent the confidence of his patient and swaps it off to the highest bidder?

Verily we have come to the parting of the ways and at the rate the public is, at present, becoming informed as to some of this medical underhandedness, we may hope soon for a purging whose wholesomeness will reach even to the souls of its victims — a true reversal of form in which the public becomes the doctor thrusting his physic down the throats of the unwilling profession.

For our part, we have no hesitancy in declaring ourselves even more forcibly than heretofore, if possible. The Journal stands ready to do its part in the exposure of any and all medical grafts, and we would consider ourselves derelict in our duty if we did not aid in the campaign of publicity that has at last started against this bartering of human lives and bodies. It is, in our opinion, the most dastardly splotch that has ever been cast on the fair escutcheon of the Æsculapian art. From time immemorial, the name of the doctor has been held by the public almost in reverence as being symbolic of high-mindedness and personal purity, only to be dragged into the gutters now by a class of commercialized medical skullduggers.

We wish not only to add our voice to *American Medicine's* protest against premature specialism but to bid God-speed to the day when the public is aroused to the underlying evils of commercialism which have made such conditions possible!

THE CURE OF CANCER OF THE STOMACH

There are a few facts in medicine, rare though they be, that are as firmly established as the laws of physics. Among these we should realize the hopelessness of an attempt at the medical cure of gastric carcinoma.

An article setting forth some plain facts in a brief yet concise way concerning this disastrous form of morbidity is that of W. J. Mayo, in the February number of *Surgery, Gynecology and Obstetrics.* He marvels that despite the fact that there is no authenticated case on record in which a cancer of the stomach has been cured by medical means, yet the lesion is treated by the physician, admitted to medical wards in hospitals, and rarely is surgical consultation considered. As he well points out, it is the one disease of all diseases that should be considered from the surgical standpoint. Appendicitis often resolves under nonsurgical treatment; strangulated hernia occasionally forms an artificial anus spontaneously and the patient recovers, yet no one would hesitate to condemn that practitioner who did not consider surgical intervention in either of these lesions. Likewise cancer of the breast is occasionally cured by the plaster quack, but the poor stomach is not even given the chance offered by the quack, because of its position, of course.

The apathy of the profession is pictured by Mayo as follows: "To merely diagnose cancer of the stomach is enough to satisfy the patient, the family and the friends, and it is received with an oriental-like resignation as being the fate from which there is no escape."

Recent development of gastric surgery teaches us that cancer of the stomach early diagnosed gives as good results as operation for cancer in any other part of the body. Nor is its malignancy of any higher grade nor its operative removal more difficult than cancer of the gastro-intestinal tract elsewhere. Mayo would group the causes for this apathy into three groups: (1) the supposed prohibitive mortality of the operation itself; (2) the improbability of cure provided the operation is successful; and (3) the difficulty of securing a sufficiently early diagnosis on which to base an operation.

Regarding the mortality of the operation, the statistics at St. Mary's hospital show that in the last 100 cases operated on there was a mortality of 7 per cent.; in the last fifty cases 4 per cent., and these figures are not exceptional. The question of permanency of cure is still open to debate. The three year and five year limits are now known to be somewhat mythical, for there is no definite period beyond which the disease may not return. The question, of course, arises here as elsewhere in the consideration of malignant disease, whether or not a growth appearing after five years is a recurrence or an entirely new growth. Of 307 resections of the stomach for known carcinoma performed in St. Mary's Hospital up to Nov. 1, 1911, 150 of the patients were operated on more than three years ago. Twenty died from results of the operation; they were unable to trace forty. This leaves ninety patients who recovered from the operation, and whose present condition is known. Of this number thirty-three, or 36.6 per cent., are alive. Of ninety-three patients operated on more than five years ago, fifteen died and twenty could not be traced. Of the remaining fifty-eight, thirteen, or 22 per cent., are known to be alive and well over five years. All deaths occurring within the five year period are classed as deaths from recurrences, which works an injustice to the statistics, since the normal death rate for five years of individuals the age of these patients is at least 8 per cent. Hence, given a gastric carcinoma sufficiently localized to be radically removed, the chances of operative recovery are better than 90 per cent.; for a three year cure better than 36 per cent., and for a five year cure at least 25 per cent. Gastrojejunostomy is of course but meager palliation, but does give five months of temporary respite. However, with the ulcerating, carcinomatous mass in the stomach, its foul débris and septic discharges passing down the intestinal canal along with the food, such palliation is far less ideal than that afforded by gastrectomy with its relief of the local condition and average prolongation of life of over twelve months. Also the cause of death is usually a painless metastasis in the internal organs, and the nutrition, strength and ability to work are maintained until shortly before death.

The most difficult question in the consideration of gastric cancer, however, is that of early diagnosis. In this connection, let us eliminate all elements which in the early stages are of little value, as waiting for them to develop usually means waiting until the case becomes hopeless. Among these might be mentioned laboratory

methods of diagnosis. Not that these are not of distinct value because they are aids, but aids only. Considered alone the question of acidity is of little value, especially the free hydrochloric acid content, as will be seen at a glance in the consideration of a patient with cancer developing on a chronic ulcer. Conversely, chronic pancreatitis, pernicious anemia, etc., may have either low acidity or no acidity at all present. Benign obstructions are likewise often marked by low acidity, absence of free hydrochloric acid and even lactic acid and the bacillus of Oppler-Boas may be present. Occult blood is by no means pathognomonic, as it may result from traumatism from passing the stomach tube, or even the rough use of a tooth brush. Like the other laboratory signs, and like the *x*-ray examination, it has its significance only when taken into consideration with the history and clinical aspects of the case.

The author then asks on what we are to base an early diagnosis. He divides the stomach into two unequal parts by dropping a line downward from the cardiac orifice. That part lying to the left, composed of the dome and fundus, has but few lymph channels and they drain to the left into the glands in the splenic area and to the glands about the cardiac orifice. With the exception of the area about the cardiac orifice, cancer occurs but rarely in this region. The smaller or pyloric portion, composed of the lesser curvature and antrum, is definitely independent of the body of the stomach, very largely supplied with lymphatics, and the seat of more than 80 per cent. of all gastric carcinomata. Furthermore, this is the part which is palpable and removable. Cancer of the fundus seldom gives symptoms in time for a radical cure, and this is also true of pyloric tumors lying high on the lesser curvature.

Axiomatically, it may be said that cancer of the stomach, *per se*, produces no symptoms on which an early diagnosis can be based. A growth developing in the palpable portion of the stomach or introducing obstructive phenomena by narrowing the lumen permits of a diagnosis sufficiently definite to indicate operative interference. Therefore, given a movable tumor in the pyloric end, or remnants of food in the stomach from eight to ten hours after eating, we have the two most important, and indeed almost the only definite signs of cancer on which a diagnosis can be based, and in the presence of correlated clinical data, such findings warrant exploration. Indeed, exploratory incision is demanded by such findings, and if at operation a benign lesion in place of a malignant one is found, such as ulcer and its results, surgical treatment may be had with a happier prognosis. Ordinary skill only is demanded for the palpation of a mass in the pyloric end of the stomach, and the same may be said of that required for the discovery of food remnants. For the latter purpose the patient is advised to take with the evening meal some half cooked rice, and a few raisins. Before breakfast in the morning, when the stomach should be empty, the stomach tube is passed. If food remnants are found on several occasions and the patient's history and general examination yield suspicious data, the responsibility of delay in exploration should be placed on the patient.

At the present writing, not more than one-half of the total number of cases of gastric cancer could be diagnosed sufficiently early for radical cure. Few malignant lesions at the cardiac orifice can be successfully removed, and diagnosis of those malignant tumors, lying along the lesser curvature in the cardiac portion of the pyloric end too far concealed under the rib margin to be palpable, is almost impossible.

The author believes, however, that fully one-half of all gastric cancers are situated in palpable portions of the stomach. Operability then depends largely on the location of the disease in the stomach. Cancer of the pyloric antrum with an occasional growth in the body of the stomach makes up the large bulk of cases favorable to radical removal. Complete gastrectomy has not proved a successful operation, both because of the high mortality and the metastasis and extension to the neighboring organs in cases in which this operation would be indicated.

Among the signs of inoperability, Mayo mentions marked cachexia with progressive gastric trouble dating over a period of a number of months and with a fixed tumor lying to the left; involvement of the sigmoid through an escape of cancer cells into the peritoneal cavity, and the gravitation to the pelvis; the presence of carcinomatous glands in the supraclavicular fossa, especially on the left side; the umbilical button formed by cancer cells freed in the abdominal cavity and carried by the lymphatics to the umbilicus; liver or peritoneal metastatic deposits, and finally ascitic accumulations in the abdominal cavity, historically malignant in type.

Like cancer of the skin, it is probable that cancer of the internal epithelial surface of the body probably begins in a preexisting lesion, the most common of which, in the stomach, is chronic ulcer. This in itself is an indication for the removal of all chronic, calloused ulcers in the stomach when practicable.

In conclusion, the succinct statement is made: "Cancer of the stomach is the most frequent and most hopeless form of cancer in the human body" and that "early removal affords the victim the only chance of a cure."

THE MEDICAL WORLD'S INCONSISTENCY

The February issue of the *Medical World* contains an altogether remarkable illustration of inconsistency in the shape of a severe arraignment of counter-prescribing pharmacists. Also a lame attempt is made to justify its own endorsement of proprietary nostrums exploited to the public and advertised in the *Medical World*.

Regarding the counter-prescribing druggist the *Medical World* propounds questions such as: "If a man with a swollen foot applies to a druggist for something and is told he has the gout, whereas it turns out that he was in the last stages of acute nephritis, and the druggist gives him a liniment for the gout, to be rubbed on the foot, is that druggist not liable as above, since the sick man rubs the liniment on his foot and fails to get proper treatment for his kidneys?"

Regarding the things that are exploited to the public, both through the medical profession and direct, and which have the endorsement of the *Medical World's* advertising pages, it is said: "But in the case of ointments, trusses or other external appliances, prepared foods, simple domestic remedies, etc., the matter is far different. These things are not dangerous to the laity, and there is no objection to their being advertised both in medical journals and in the lay press."

"The 'campaign' of a certain crowd of extremists is misleading some level-headed doctors on this subject. Be rational, and think for yourself. It is better to be sensible and reasonable than rabid. There is nothing advertised in the *Medical World* but what has a place of legitimate usefulness. Examine the advertisements and think for yourself."

An examination of the advertising pages of the *Medical World* reveals advertisements for the following nostrums with which both the medical profession and the public are humbugged: Valentine's Meat-Juice, Bovinine, Glyco-Thymoline, Vapo-Cresolene and others. As an illustration of the censorship over the claims made for "patent medicines," even within the pages of the *Medical World*, we quote the following gem: "For the hair—Ly-O-Durk, the crude-oil tonic, is a petroleum product, therefore a natural hair grower."

We agree that the counter-prescribing druggist is swindling the public and that he constitutes a real menace to health, but we believe that a long-continued practice and a fundamental ignorance may be urged in extenuation, if not in excuse, in his case. What can be said of a medical editor whose writings demonstrate his competence and whose attitude on fundamental questions is, in general, above criticism, but who endorses nostrums which are humbugs and which are detrimental to the profession as well as to the public? "Consistency, thou art a jewel!"

EDITORIAL NOTES

Votes for women may be all right but we notice that most of the leaders in the fight are not very strong on home and motherhood.

A doctor may buy an automobile from the proceeds of fee division, but the transaction will not add to his chances of getting a soft berth in heaven.

A doctor may do as well as he knows how, and be excused in the eyes of the law, but that is not saying that he is entitled to a license to tackle anything that comes along.

When you see a man running around with a bible under his arm and spending time talking religion when he ought to be looking after his business, you will be a wise man if you lock up your valuables and prepare to protect your name and honor.

There is a good warm spot in Hades reserved for the religious editors of lay papers who accept advertisements for menstrual regulators, lost-manhood cures, and a variegated assortment of frauds of like order, but some of us would like to see them get a little punishment while they are on earth.

For the benefit of those who may not be acquainted with the fact, we desire to announce that the State Board of Health has issued a certificate blank which, when properly filled out by the county health officer and the township trustee, will enable a needy person who has been bitten by a mad dog, or a dog supposed to be mad, to a free Pasteur treatment for hydrophobia.

The final report of the Wiley investigation committee has been submitted to Congress and is a complete vindication of Dr. Wiley and those who are interested with him in the proper enforcement of the Pure Food and Drugs Act. It remains to be seen what the next step will be in an effort to either secure the removal of Dr. Wiley or greatly limit his sphere of activity.

During February Indiana saw one of the worst snow storms in its history. Traffic of every description was delayed from one to four days, and business in general was more or less paralyzed. The February number of The Journal was ready to be shipped just about the time the storm commenced, and in consequence of delayed freight, mails, etc., it was several days later in reaching our subscribers than it otherwise would have been.

Fort Wayne is the home of several medical mail order houses, quite a large number of advertising medical quacks, and the President of the Indiana State Board of Medical Registration and Examination. Now we are informed that negotiations are pending for the establishment of a chiropractic college in Fort Wayne, and it is asserted that the promoters claim that Fort Wayne is the best city in Indiana for such an institution. Just why Fort Wayne should be so afflicted is a question hard to solve.

We desire to remind our readers that membership in a county medical society is necessary in order to secure as well as to maintain membership in the Indiana State Medical Association and also in the American Medical Association. Whenever a physician ceases to be a member in a county medical society he ceases to be a member of the state and national associations, and it is therefore highly important that the matter of paying dues promptly be given earnest consideration.

Beginning with the September term, 1911, the Medical Department of Tulane University, at New Orleans, inaugurated laboratory and systematic courses in tropical medicine, hygiene and preventive medicine. It is the intention of the University to develop this feature of the medical school and obtain a sufficient endowment to broaden it into a full school of tropical medicine and hygiene, embracing all the features of such an institution. This is the first school of tropical medicine in America, and it should be encouraged by a sufficient endowment to enable it to carry on the work with great effectiveness.

Dr. William H. Wishard of Indianapolis, ex-president of the Indiana State Medical Association, and one of the best-known and most beloved physicians of the state, celebrated his ninety-sixth birthday anniversary on January 18, and during the day was visited by a large number of friends who called to extend their best wishes. The Journal joins in felicitations, and expresses the hope that the rising generation of physicians may profit by Dr. Wishard's long life of a highly honorable and useful career, and emulate his example of sterling integrity and conscientious devotion to duty.

The well-known firm of H. K. Mulford Company prints on their bulletins the following statement which in view of our fight for ethical standards is suggestive: "Physicians and pharmacists are cordially invited to visit our laboratories and inspect our work of standardizing the principal drugs of the materia medica. A hearty welcome will always be assured, and we shall appreciate suggestions that may increase the value of our service to the medical and pharmaceutical professions. We do not lend the facilities of our laboratories to the preparation of nostrums, but, by conducting our business on ethical lines, strive to merit your cooperation and support."

There is just one way to stop the practice of carrying objectionable advertising in medical journals, and that is for the medical profession to refuse to subscribe for or to receive journals which haven't clean advertising pages. As long as there are doctors who will support journals that are nothing more than exploiters of nostrums, just so long will there be editors whose consciences are so warped that they will prostitute the pages of their journals for money. To be a party to deception, fraud and dishonesty ought to be beneath the dignity and policy of any man who aspires to the confidence of his fellow-men, but there are some men who have to be forced to be good, and we believe that there are some medical editors who ought to be forced to cut out objectionable advertising from their journals on account of loss of subscription patronage.

As near as we can find out, Indiana does not show a very large membership in the League for Medical Freedom. Those who are leaders in the movement have very vague ideas as to just why they are opposing the Owen bill. Usually the argument starts and ends with the statement that the League is opposed to a doctors' trust. But when they are pinned down to cold facts, it is found that but few of them really know what the Owen bill provides for and the reasons for the enactment of such legislation. The rankest falsehoods and deception are used to create support of the League in its efforts to prevent the creation of a department of public health, and if any person with a moderate amount of intelligence and fair reasoning powers will study the subject from an unbiased stand-point, it will readily be seen that the rank and file of the membership in the League are being used as cats' paws by a few who have interests at stake.

A Physician residing in the southern part of the state writes us asking the names of the members of the Medical Defense Committee and says he is threatened with a malpractice suit which he expects the Indiana State Medical Association to defend for him inasmuch as he has paid dues for 1912. The services for which suit is threatened were rendered "last summer." If the doctor had read the last three numbers of The Journal he would have known that medical defense by the Association began on January 1 for those who have paid dues for 1912, but that it applies to services rendered on or after January 1 and subsequent to the payment of dues for 1912. In other words, medical defense does not cover suits based on services rendered prior to January 1, nor suits for services rendered after January 1 unless the member has paid his 1912 dues prior to the rendering of the services which are the basis of the suit.

The osteopaths who have complied with certain requirements of the Indiana State Board of Medical Examination and Registration ought to kick themselves because they ever went through the trouble and expense of securing a license to practice osteopathy, for now the chiropractitioners, who are virtually osteopaths, are swarming into the state and practicing without let or hindrance. And then it is so easy to become a chiropractitioner, for "The National School of Chiropractic and Physiological Adjustment" of Chicago will give a complete course by mail and a diploma for $100. If you can't afford or do not want to pay $100 there is a way by which you can get the complete course and diploma by mail for $50. Perhaps if sufficiently urged the course may be procured for $10, as the policy seems to be to get the full fee if possible, but under any circumstances to take whatever may be obtained.

It is hard to understand how some medical editors can ease their consciences when they accept for the advertising pages of their journals the advertising of such preparations as Antikamnia, Syrup of Figs, Glyco-Thymoline, Seng, Antiphlogistine, Pepto-Mangan, Tongaline, Listerine, Palpebrine, Bovinine, Hayden's Viburnum Compound, Sanmetto, Bromidia, Ergoapiol, Sal Hepatica, Prunoids, Cactina, Chiona, Glyco-Heroin and a dozen or more other proprietary remedies exploited under misleading and often positively dishonest and dangerous claims. Of course the advertising is profitable in dollars and cents, but why convert the pages of a medical journal into a lottery in which only the editor and the advertisers hold the winning tickets and everyone else is swindled? Surely there is some recompense and certainly more honor in editing a journal that is clean throughout and the income from which is not tainted.

The Journal of the A. M. A. of Feb. 3, 1912, calls attention to the various epidemics of *Streptococcus tonsillitis*, including the ones at Christiania in March, 1908, and in Boston in May, 1911, both of which were traced to an infected milk-supply, and refers to the many small epidemics of septic sore throat which have been traced to milk-supply. It is pointed out that the lessons to be drawn from these outbreaks are the following: (1) that epidemics of streptococcus infection, localizing in the throat especially, may be due to contaminated milk-supply; (2) streptococcus throat infection, "septic sore throat," must be recognized as one of the dangers connected with the supply of raw milk even when it is most carefully supervised; (3) as pointed out by Winslow, *Journal of Infectious Diseases*, November, 1911, the only real safeguard against such otherwise preventable outbreaks would seem to lie in pasteurization, carried out preferably by the holding system and in the final packages.

It is quite evident that many manufacturing chemists do not wish to have anything to do with the Council on Pharmacy and Chemistry of the A. M. A., and the reason is obvious. These firms have but a very few preparations that could pass

the Council, and hence the acceptance of the few that would be accepted would only call attention to the great number that would have to be rejected by the Council because of the way they are exploited, or for other reasons. Many of these firms are probably also afraid that their endorsement of the Council would hasten the day of reckoning for their share in the Great American Fraud. They may ignore the Council as long as possible, but if the medical profession takes a proper view of this matter, such houses will receive scant consideration. The very fact that a manufacturing pharmacist either ignores the Council or refuses to submit his preparations for the approval of the Council ought to be evidence indicating ways that are dark and tricks that are shady, for the firm that is making honest preparations and advertising them honestly has nothing to fear from the Council.

Indiana has a good pure food law and, more important still, it has efficient and active officers to enforce it. One of the valuable provisions of the Indiana act was designed to protect the public from the sale of impure milk. The Indiana newspapers have recently chronicled the fact that an Indiana dairyman was found by the state inspectors to be selling dirty milk. The officers purchased some of this milk for the purpose of securing evidence against the dairyman. They found the dirt and the dairyman was prosecuted for selling a filthy product. When the case came into court, the attorneys for the milk dealer maintained that their client was not guilty of violating the law because it must be shown that the milk was purchased for human food, when, as a matter of fact, it was purchased in this instance for purposes of analysis. The judge before whom the case came sustained the motion of the defendant's attorneys and held that the dairyman was not guilty of an offense under the Indiana Food and Drugs Act! We refrain from commenting on this example of judicial wisdom for fear of violating the postal laws.—*Jour. Am. Med. Assn.*, Jan. 6, 1912.

Formamint Tablets are widely advertised and extravagantly exploited to the laity in Great Britain. Large and expensive advertisements appear in the English magazines and newspapers and the tablets are pushed under the most preposterous claims. The preparation is put out, we understand, by the same concern that exploits Sanatogen. The medical profession of this country is now being circularized and advertisements are appearing in medical journals. They already appear in the *Medical Record, New York Medical Journal* and *American Journal of Clinical Medicine.*

It seems then that this is another product which, for the time being at least, is to be a "patent medicine" on the other side of the Atlantic and an "ethical proprietary" on this. Doubtless the distinction will be a temporary one and as soon as American physicians have furnished the requisite number of testimonials and have recommended it to a sufficient number of their patients the advertisements will be quietly dropped from the American medical journals and the advertising pages of newspapers and magazines will be called into service.—*Jour. Am. Med. Assn.*, Jan. 27, 1912.

Notice to County Medical Society Secretaries.—For the last three years the Indiana State Medical Association has had four delegates to the American Medical Association sessions. This spring the delegates will be reapportioned and Indiana will be entitled to one delegate for every 500 members or fraction thereof that we have on our list April 1. We have enough members now (March 1) to give us five delegates, which is an increase but still not enough to give us what we really deserve. We should by all means get 2,501 members by April 1 and be entitled to six delegates.

The time will be short after you receive this Journal but it means that every secretary will have to send in the dues of at least one member for each seven that you now have. These must *positively* be mailed before April 1. It is only fair to some of the smaller societies that have already increased their membership to state that the larger societies such as Marion, Allen and Vigo counties are very much behind their last year's quota; therefore, we must expect the most of these 300 additional names to come from these counties. This does not mean that you have to get new members, as there are at present 521 of last year's members who have not yet paid up for 1912.

If we succeed in getting the six delegates it will put Indiana seventh from the top in the list of state associations, an attainment worthy of our very best efforts. Will you do your share?

Charles N. Combs, Secretary.

It may seem to be good business policy to buy cheap drugs and chemicals because of the immediate money saving, but in the end it will be found to be an expensive proposition for one

who has the slightest conception of values in the returns. No really good thing is ever cheap. Quality represents time, energy, skill and money. A man may buy a poor horse and give the horse away when found of no account; he may use poor butter as axle grease when found unfit to eat; he may discharge a cheap and good for nothing servant; but when he buys and uses poor drugs and chemicals for the relief of disease he is trifling with health and life and he has no moral or legal right to take such unwarranted chances. The pure food and drug law has prescribed a certain standard for drugs and chemicals but some of the most valuable remedies for the treatment of diseased conditions require physiologic standardization in order to establish their potency, and as yet there is no law requiring such determination. Physiologic standardization represents time, energy, skill and money. It is not practiced by many manufacturing pharmacists and chemists who bid for patronage because of the price of their products. There are, however, responsible and reputable firms who are practicing physiologic standardization wherever necessary and they deserve the patronage and confidence of physicians in their efforts to place pharmacy on a rational and trustworthy basis. Their motto is "not how cheap but how good," and their motto should be the motto of the man who uses anything produced by the manufacturing chemist.

In last month's issue of The Journal we published a comment on the decision of an Indiana judge in the prosecution of a dairyman for selling adulterated milk, the decision being in favor of the dairyman. In Fort Wayne there is a slaughterhouse reeking with filth and disease, and repeatedly condemned by the city and state boards of health, yet prosecutions fail to bring about convictions and a remedy of the conditions dangerous to public health. Many times have doctors been prosecuted for illegal practice, some of the offenses being performance of abortions, and yet, notwithstanding a preponderance of evidence in favor of conviction, there have been few instances in which the culprit has been punished. Within the last few years Indiana has been the scene of several brutal murders and the fiends who committed the murders, notwithstanding their admission of guilt, or conclusive evidence of guilt, have received minimum sentences and later been pardoned by an indulgent governor or a sickeningly sentimental pardon board. In one of our Indiana cities a policeman saw a young pervert deliberately insult a respectable woman without lending the majesty of the law to protect the woman, and when his attention was called to the insult the complainant was promptly arrested for disorderly conduct.

We must expect these things to continue when crimes and misdemeanors of every sort are no more adequately punished than they are in Indiana. It would seem that the courts, the governor and our pardoning board find altogether too many technicalities, or sentimental reasons for staying the hand of righteous justice. We have enough laws, and they are sufficiently stringent, but what we need, and need badly, is more law enforcement.

We have recently received a letter signed by C. S. Carr, M.D., of Columbus, Ohio, in which exception is taken to the editorial in our issue of December in which we stated that those who howl the loudest against the Pure Food and Drugs Act and Dr. Wiley are the patent medicine manufacturers. Dr. Carr says that he is in a position to know what the patent medicine manufacturers have to do concerning the pure food and drug regulations, and that if he is correctly informed, the patent medicine men as a class do not object to any such regulations. He further states that the injury the patent medicine manufacturers have received from Dr. Wiley's campaign has been slight compared with the injury to the so-called ethical preparations, and that together with all other drug manufacturers, the patent medicine men have suffered from the wonderful spread of drugless methods of treating disease. He says that he happens to know that among the patent medicine manufacturers there is no separate or concerted action against the Pure Food and Drugs Act.

Dr. Carr is the editor of the *Columbus Medical Journal*, which is run largely in the interests of nostrums and worthless pharmaceutical specialties. He is the publicity agent for Peruna, and is a member of the advisory board of the National League for Medical Freedom. The National League for Medical Freedom is opposed to the Owen bill, and, as has been pointed out elsewhere in this issue, spent $50,000 in advertising when the organization was in its infancy and could have had but a limited membership. It is logical to conclude that the patent medicine interests supplied the money for the advertising of the National League for Medical Freedom, and did it with a well-defined purpose in view, and such purpose is unquestionably the defeat of the Owen bill which would give Dr. Wiley more power in enforcing the Pure Food and Drugs Act.

The doctor who is a crook will be found out sooner or later and then he cries loudly for help from the medical profession he disgraced. What a pity that some men are not found out early in their careers and given the punishment that fits the crime. There are some in every populous community, and the drag net would catch some erstwhile popular idols.

Doctors are among the worst enemies of doctors. An agent for one of the large companies furnishing medical defense in malpractice suits makes the assertion that in nine cases out of ten a suit against a physician for malpractice is either instigated by or has the encouragement and support of another physician. A firm of surgeons conducting a large and well-known hospital are authority for the statement that whenever one of their patients is dissatisfied with the treatment received or the amount of the fees charged, it is usually found that the objection has arisen directly or indirectly through the influence of some physician. This all leads us to remark that physicians should not only be charitable toward one another but recognize the fact that what is for the benefit of one physician is for the benefit of all, and our aim should be to maintain a high standard of honor and helpfulness of one another in the profession. We are not in duty bound to uphold the ignoramus or the knave, but an ignoramus is not often the victim of a malpractice suit, and not all physicians who seek adequate compensation for services are knaves because they happen to charge a little more than their neighbors. Every honorable physician has a right to expect the cordial support and sympathy of his fellow practitioners. If guilty of a dishonorable act, he deserves to be punished; but it is easier to accuse than to prove, and it is better to suspend judgment than to be hasty in arriving at conclusions. In other words, a little more of the spirit of optimism and friendship will go a long way toward making a more united medical profession.

We receive many inquiries concerning the standing of various quack doctors and medical mail order houses located in Fort Wayne, and have been asked recently why a national bank will lend its name and influence to further the frauds that are practiced by these concerns. As an evidence of the part that some banks play in helping to delude the sick and suffering it is only necessary to see one of the certificates guaranteeing cure that are sent out by one of the well-known medical mail order houses of Fort Wayne. There in unmistakable language is the use of the bank's name as a guarantee that the promises will be fulfilled. In consideration of the fact that the average bank is very careful to avoid giving public endorsement of any enterprise we wonder what influence was brought to bear to secure bank guarantees for a medical fraud. Is there "graft" in it? Is the bank paid for the use of its name or is the backing given as a personal favor to a good customer who keeps a fat bank account at all times? However, we are of the opinion that a national bank which invites confidence should be in better business than lending its name and influence to a medical fake.

A well-known instrument dealer makes the statement that "doctors are usually good pay but slow, and are usually offended if asked to be prompt in the settlement of accounts." This indictment is worthy of some consideration, for the instrument maker is not the only tradesman who complains that many doctors are "slow pay." Perhaps the reputation that doctors have of being "poor business men" is in part founded on the habit of procrastination in the payment of obligations, though we believe that some of this reputation is due to the leniency shown patients in the settlement of accounts for professional services rendered, and to the general tendency which permits doctors to be victimized by those who profit by the credulity of others. However, the reputation is not one of which we should be proud and there is no good reason why we should suffer from such stigma. Business methods should be followed by the doctor just as much as by the tradesman and there is no good excuse for following any other course. The extension of credit is what works harm in any business, and the most successful as well as the most respected business man is the one who maintains his own credit and refuses to extend undue credit to others. The practice followed by some physicians of sending out statements once or at most twice per year leads to the loss of much money that could be collected if more business-like methods were followed. This carelessness on the part of the doctor in the collection of accounts leads to carelessness in maintaining his own credit, and in turn to a loss in that confidence and respect which the general public should entertain. The doctor is, therefore, the loser in whatever light the matter is viewed.

A flashily dressed and diamond adorned man was eating his dinner in a dining car on the fastest of our extra fare trains. In commanding language he had ordered the colored waiter to bring nothing but the best and plenty of it, and in consequence he was surrounded with numerous dishes containing enough food to feed a dozen and drink of the alcoholic variety sufficient to paralyze a wooden Indian. With napkin tucked in at the neck, and throat cleared of phlegm which had been deposited on the floor, he proceeded noisily to devour the feast before him, shoveling most of the food into the mouth by means of his knife, drinking bouillon and coffee with the spoon in the cup, and frantically trying to stab the radishes with a fork as they repeatedly slipped from the plate of cracked ice on which they were served. An unprotected cough or two during the meal brought a shower of mucus and partly masticated food over a portion of the table, but no sign of apology to the luckless traveler who happened to be sharing the table with him. At the conclusion of the meal an order for cigars was given and on being shown a perfecto of recognized quality but moderate price he shouted "Them aint good enough for me. Aint you got any 50 cent cigars?" This beautiful specimen of the genus homo was a millionaire of recent creation, the product of ill gotten gains from proprietary medicines skilfully and profitably advertised.

It is not necessary to go to the slums to find ignorance, ill manners or vulgarity. Take a ride on any extra fare train or the fastest and most luxurious steamer, or stop at one of our most expensive hotels, and there you will find abundant evidence of the tendency of the times which is to create an aristocracy of dollars in which the question of education and refinement has no part. What is called "society" in most of our large cities is nothing more than an aggregation of struggling peacocks all trying to keep up with or outdo, and certainly to keep in the good graces of, the new but ignorant and vulgar rich. Which causes us to remark, all pale blue asses, some paler than others.

Secretary Combs advises us that the officials at the A. M. A. office in Chicago recommend that membership in state medical associations should be transferable when the owner moves to another state, and that full benefits should be accorded the transferred member by the state medical association to which he is transferred and without the payment of any membership fee for the unexpired portion of the year. We believe that this is radically wrong and that to practice the plan proposed will lead to misunderstandings and complications. The differences in the amount of dues, in the expiration of the fiscal year, and in the benefits afforded members in the various state medical associations offer reasons for not granting membership and its benefits to a physician who has not complied with our requirements by paying his dues to our Association as required by our Constitution and By-Laws. Why should a physician who has paid one dollar dues for 1912 to an association that has no medical defense fund be accepted as a member and entitled to full benefits in the Indiana State Medical Association for all or any portion of the year 1912, and why should any physician who has paid two dollars for 1912 to our Association be accepted as a member and entitled to full benefits in another state association perhaps having three or five dollar dues and affording more benefits than we do? To our notion the proposition is absurd and we are unalterably opposed to it. The physician who is a member in good standing in any state medical association should be accepted as a member by any other state medical association on payment of the regular dues of the association to which he wishes to be transferred, and this is the only way that the transfer can be made and have it fair to the association that accepts the transfer. There is no reason for paying a premium to secure members who move from another state, and if the newcomers do not want to pay dues to our Association, then it is their privilege to retain membership in the state from which they come. Because a man cannot stay to see the show out is no reason why he should have his money back, and because he has paid to see one show is no reason why he should be admitted free to another.

It is very probable that every physician in Indiana has quite recently received samples of Phenalgin, and literature concerning the reputed marvelous results to be secured from its administration. The Council on Pharmacy and Chemistry has shown that this preparation, under the trade-mark name Phenalgin, is a mixture of acetanilid 57 parts, sodium bicarbonate 29 parts and ammonium carbonate 10 parts. The advertising matter states that Phenalgin may be administered without the slightest harm, injury or depressing effect; that its prolonged administration does not give rise to destructive blood morphoses; that it aids in destroying the malarial parasite; that it is the safest and most dependable of analgesics; and that it is indicated in the treatment of headache, colds, lumbago, scanty menstruation and pain in any part of the body.

The Council on Pharmacy and Chemistry asserts that Phenalgin is a type of proprietary humbug that is foisted on the medical profession under claims that are both false and vicious, and that it is as big a humbug as Peruna ever was. Under the propaganda for reform, the statement is made: "The Etna Chemical Company, manufacturers of Phenalgin, is perpetrating a stupendous fraud on the medical profession to-day, and it is doing it not only through the agency of the United States mail, but with the aid and support of the following medical journals and others, in which the Phenalgin advertisement appears: *Medical Record, New York Medical Journal; Pediatrics; Lancet-Clinic; American Journal of Surgery; International Journal of Surgery; American Medicine; American Journal of Obstetrics; Medical Century; Pacific Medical Journal; Dietetic and Hygienic Gazette; Medical Standard; Eclectic Medical Journal; American Journal of Clinical Medicine.* The only charitable explanation for the appearance of the Phenalgin advertisements in the medical journals listed is that the editors and publishers have not given the subject the attention it deserves and to which their readers are entitled. Perhaps it would help if their attention were called to the matter by their subscribers."

There seems to be little doubt that the propaganda against "patent medicines" in Great Britain has reached the place where a royal commission will be appointed to investigate the nostrum evil. This investigation will doubtless prove interesting and instructive and may be counted on to throw much light into dark places. While the recommendation for the appointment of such a commission has been fathered by the British medical profession, we venture to predict that if the investigation is broad and impartial, the medical profession of Great Britain will not be held entirely blameless for the very evil it deplores. While the British Medical Association has done splendid work in the last few years in exposing fraudulent "patent medicines," it has, unlike the American Medical Association, neglected to clean its own skirts first. No attempt has been made, so far as can be seen, to purge the British medical profession of the innumerable fraudulent proprietary remedies with which it is afflicted. American and European nostrums of the "ethical proprietary" type hold high revel in the advertising pages of high-class medical journals in Great Britain. Even advertisements of the notorious Antikamnia, which practically all American medical journals of any standing — the esteemed New York *Medical Record* always excepted — have for years debarred from their pages, is still carried by such English journals as the *Practitioner,* the *Lancet* and the *Medical Press and Circular!* It is perfectly evident that the "patent-medicine" men's organization in Great Britain will attempt to defend its members, and one of the first questions that will be raised is: Wherein is it any worse for the public to buy medicinal preparations about which it knows nothing, than it is for medical men to prescribe medicinal preparations about whose composition they know nothing? There can be only one answer to this question and we believe not only that the British medical profession will find difficulty in justifying its position on the nostrum question, but also that this very difficulty will do much to offset the good that such a royal commission might otherwise accomplish.—*Jour. Am. Med. Assn.,* Feb. 3, 1912.

Concerning the opposition of the National League for Medical Freedom to the Owen bill, *The Journal of the A. M. A.* gives this explanation: "The National League for Medical Freedom was incorporated, according to its own statement, about May 1, 1910. The public first knew of its existence on May 18, 1910, when a large display advertisement appeared simultaneously in the leading newspapers of the entire country. At this time the organization could not have had a large membership, as it was only two weeks old. Indeed, it must have been entirely unknown to the great mass of the public. Yet the initial advertising contract, as estimated by one of the leading advertising agencies, amounted to nearly $50,000. Who contributed or advanced this large sum? Obviously, some person or persons willing to pay $50,000 to see the Owen bill defeated. Then there must be something in the Owen bill that some persons are willing to pay $50,000 to prevent. Now the only thing the Owen bill does is to transfer three existing bureaus to a new department. These bureaus are the Public Health and Marine-Hospital Service, from the Treasury Department; the Division of Vital Statistics, from the Bureau of the Census, and the Bureau of Chemistry from the Department of Agriculture. The first two bureaus could have no great influence on business no matter in what department they were located. Their transfer would not menace any business interests. Therefore, the only remaining explanation for the opposition is to be found in the transfer of the Bureau of Chemistry, now in the Department of Agriculture, to the proposed Department of Health. But why should business interests be willing to pay

$50,000 to keep the Bureau of Chemistry in the Department of Agriculture? Because Dr. Wiley, who is head of the Bureau, might be controlled or hampered in the Department of Agriculture, but could not and would not be hampered in the Department of Health. So the patent medicine and adulterated food manufacturers and their advertising agents, who, hiding behind the misled and misinformed Christian Scientists, sectarians and faddists, are pulling the strings, were willing to contribute $50,000 to keep Wiley where he is. The real reason for the opposition to the Owen bill is that its passage will untie Wiley's hands."

Just why his honor, the judge, in all our courts should consider himself above criticism and free to punish any person who disagrees with him, is a question hard to answer; but the fact remains that the American people have been afraid to criticize, except under breath, the official conduct of any of our courts. That our judges assume or are given altogether too much autocratic power seems evident, and a case which comes to our notice is an illustration. A physician in an adjoining state was on the witness stand in a civil suit, and becoming offended at some of the impertinent and rather insulting questions of one of the lawyers, retaliated in vigorous language, to which exception was taken by the court, the proceeding ending with fine and imprisonment of the doctor for contempt of court. On hearing the sentence the doctor remarked "Double it if you please, I haven't changed my mind." Forthwith the judge proceeded to double the sentence, and all for the purpose of showing his authority and teaching the luckless victim a lesson for presuming to defend himself in court when the court failed to give him the protection he deserved.

Our judges are human and just as apt to err as the rest of us, and there is absolutely no reason why we should consider their opinions or decisions as infallible. Judging from the wave of general condemnation of the unfairness and insincerity of some of our courts which has followed in the wake of a complete analysis of a great many unjust decisions that have been rendered in notorious cases, as published in some newspapers and magazines that have been fearless enough to print the facts, it would seem that the time is rapidly approaching when there will be a revolution in our methods of dispensing legal justice. At present many of the legal decisions of courts are farcical and far from fair in their bearing on the facts under consideration. Not only do needless delays, ridiculous technicalities, and reversal of decisions on the gauziest evidence defeat the ends of justice, but proof has not infrequently been put forward to show that our courts are purchasable. Occasionally, as in the case of the conviction of two or three embezzling bankers of national reputation, righteous justice stands out as an oasis in the desert, but public sentiment is always a powerful factor in these cases of national importance, and it is public sentiment which will eventually bring about a change in our courts which will end in less corruptions, less foolish technicalities and more fairness and justice to the American public.

The present agitation among public school officials for an enforcement of the inane law concerning high school fraternities, clubs and societies has reached the point where the youngsters in the public schools have been compelled to sign printed statements covering queries as to membership in, or pledges to any fraternity, club or other organization, and later to sign a pledge to resign from such societies and an agreement to remain out of such societies in future under penalty of expulsion from school.

Admitting that the law under which the school authorities are acting would stand the test, which seems hardly probable, does not alter the fact that the whole proceeding seems like a tempest in a teapot, and childish. The youngsters in our public schools will choose their friends and social associates just as their parents do, rules or no rules, and it is a privilege and right which should be theirs when the privilege is exercised outside of school. While it may be true, as intimated, that in a few localities the privilege has led to conspicuous class distinction and snobbery, yet the question arises as to whether such a condition would not prevail whether there were organized societies or not. Furthermore, if school boards with legal backing can dictate as to the pleasures and social conditions of pupils when away from school, it is but a step further to say whether the school children shall associate in any social manner without the approval of the school authorities.

The right to regulate the private life of school children could be seriously abused if given into the hands of school authorities, and this is particularly true in consideration of the fact that our school boards, as a rule, are not composed of men who are qualified for the position because of mental fitness, but secure position through politics, which oftentimes elevates very unworthy persons. The effort to wipe out social societies in our public schools, with their largely imaginary ill effects, seems so childish that we feel that the subject has been given by our legislature and

school authorities more attention than it deserves, and we predict that if conditions are not ignored as they are in some localities a far worse condition of affairs will develop from this senseless fight, and the undue prominence which is attached. Instead of attacking social conditions existing outside of school, it seems to us that our legislature and the school boards could serve a more useful, and certainly a more beneficial purpose, if some attention were directed to the physical ills that directly result from school life. The insanitary and unhealthy conditions under which many of our children are housed in packed school buildings cry loudly for correction, and the overcrowding, long hours, and lack of facilities or time for healthful recreation are a fruitful source of evils far more deserving of attention than the alleged evils arising from class distinction, which simmered down means simply a selection of social associates which in some form or other no rule or law can prevent.

A young doctor tells us the following story which we think carries a lesson with it:

"For the last year I have practiced in ———, a small Indiana town surrounded by a fertile country inhabited by well-to-do farmers. I have had as a confrère, or rather a competitor, an old physician who practiced in the town for forty years. This old doctor did an enormous amount of work at charges ridiculously small, and a few months ago boasted that he had never sent a statement of account to any patron during the forty years of his practice. Recently the old doctor died, and in settling up his estate it was discovered that he had over $60,000 in book accounts, most of which are outlawed and not 10 per cent. of the balance of which are collectable. The old doctor's aged wife and an invalid daughter were left a comfortable home, but it was mortgaged for nearly as much as it was worth and so was not long retained. Therefore, almost from the date of the death of the old doctor, his wife and daughter were thrown on relatives and friends for their support. During the old doctor's life he lived frugally and had but little enjoyment aside from that found in his work. He never found time to take a vacation and seldom attended a medical society. He possessed few books, fewer instruments, and the only medical journals received gratuitously or through subscription usually were thrown away with their wrappers still on. He apparently was loved and respected by a large following, probably because of his good nature and kindly sympathy as well as his known habit of never asking for remuneration for services rendered. He may have left an enduring monument in the questionable good done suffering humanity, but in my judgment his life was a failure and he did not live up to the demands of his position nor pay the debt he owed to those who depended on him. He owed more to himself, to his family and to his patrons than he made out of his life, and the community is the better without him unless the doctors who may follow him pursue a different course and the people learn to consider a doctor as something more than a being to be imposed on. But the influence of this old doctor who was uncouth, unbusiness-like and very uneducated according to present day standards, has been thoroughly demoralizing in every way and I have firmly decided that I haven't the time or patience to wait for the evolution which must take place before this community becomes a haven of refuge for any doctor who has intelligence, ambition and a natural tendency to progress. The atmosphere would shrivel the good qualities of any doctor who aspires to anything more than a monotonous and profitless existence, and I propose to leave the field to those doctors who are satisfied to exist rather than live. I am going to another community where I think the attitude of the people will encourage me to give them the best that is in me, where there is incentive to develop and progress, and where I shall receive adequate return for my labors. If I find that I am mistaken in my notion that men of my profession should be business men as well as doctors, and that they should receive enough for their labors to enable them to live rather than exist, then I shall take up another vocation, for I am dependent on my earnings to provide the comforts of life, and, if I practice medicine, to enable me to keep up my medical education so that it shall be abreast of the progress of the age."

CORRESPONDENCE

NEWSPAPER PUBLICITY

Jeffersonville, Ind., Feb. 15, 1912.

To the Editor:—Some time ago there appeared in the pages of The Journal an article condemning the practice of some physicians in having their names appear in the newspapers in connection with their attendance on cases, this being merely a form of advertising. It has been the custom of Jeffersonville doctors to overlook this fact, but recently this was discussed in meeting and the Clark County Medical Society drew up a set of resolutions to the effect that its members

would no longer permit their names to appear in the newspapers in connection with cases. A set of these resolutions was prepared, all the members signed the resolutions, and the newspapers were notified to withhold in the future the names of all physicians in reference to their attendance on cases.

Not only did the members of the Clark County Medical Society sign this agreement but all of the profession who were not members did so. We would have you know that this society cooperates with the State Association in everything that will advance the dignity and welfare of the profession. Very truly yours,

Halstead S. Murat,
Secretary Clark County Medical Society.

THE TRUTH ABOUT MEDICINES

This department presents, in concise form, facts about the composition, quality and value of medicines. Under "Reliable Medicines" appear brief descriptions of the articles found eligible by the A. M. A. Council on Pharmacy and Chemistry for inclusion with "New and Nonofficial Remedies." Under "Reform in Medicines" appear matters, tending toward honesty in medicines and rational therapeutics, particularly the reports of the A. M. A. Council on Pharmacy and Chemistry and of the Chemical Laboratory.

The text on which these abstracts are based may be obtained from the American Medical Association, 535 Dearborn Avenue, Chicago.

RELIABLE MEDICINES

Neisser Bacterin Mixed, a gonococcus vaccine, each c.c. being said to contain approximately 100 million each of killed staphylococcus (aureus, albus and citreus) and 50 million each of streptococci, *B. coli*, *B. pseudo-diphtheriæ* and gonococci. H. K. Mulford Co., Philadelphia (*Jour. A. M. A.*, Feb. 3, 1912, p. 343).

Pneumo-Bacterin Mixed, a pneumococcus vaccine, each c.c. being said to contain 50 million killed pneumococci, 25 million killed streptococci and 50 million killed staphylococci. H. K. Mulford Co., Philadelphia (*Jour. A. M. A.*, Feb. 3, 1912, p. 343).

Scarlatina-Bacterin (Scarlet Fever Vaccine), a streptococcus vaccine, consisting of a suspension of killed streptococci obtained from scarlet fever cases. H. K. Mulford Co., Philadelphia (*Jour. A. M. A.*, Feb. 3, 1912, p. 343).

Typho-Bacterin Immunizing, a typhoid vaccine, marketed in packages containing 3 syringes; the contents to be injected subcutaneously at intervals of ten days. H. K. Mulford Co., Philadelphia (*Jour. A. M. A.*, Feb. 3, 1912, p. 343).

Staphylo-Bacterin Mixed, a staphylococcus vaccine, composed of a suspension, each c.c. containing 25 million killed streptococci, 100 million killed staphylococci and 50 million killed *B. coli*. H. K. Mulford Co., Philadelphia (*Jour. A. M. A.*, Feb. 3, 1912, p. 343).

Von Pirquet Test for Tuberculosis consists of old tuberculin in capillary tubes. Each tube contains old tuberculin sufficient for one test. H. K. Mulford Co., Philadelphia (*Jour. A. M. A.*, Feb. 3, 1912, p. 343).

Rabies Vaccine is an antirabic vaccine prepared according to the method of Pasteur. It is a complete treatment, consisting of 25 doses, to be administered during 21 days. H. K. Mulford Co., Philadelphia (*Jour. A. M. A.*, Feb. 3, 1912, p. 343).

Bass Test for Typhoid Fever is a modification of the method of Widal, consisting of a suspension or emulsion of killed typhoid bacilli, together with the needed materials. H. K. Mulford Co., Philadelphia (*Jour. A. M. A.*, Feb. 3, 1912, p. 343).

Mulford's Widal Test Outfit is a means of applying Borden's modification of Widal's Test. H. K. Mulford Co., Philadelphia (*Jour. A. M. A.*, Feb. 3, 1912, p. 343).

Gynoval is isoborneol isovalerate, $CH_3.CH(CH_3).CH_2.COO.C_{10}H_{17}$. It is closely related to bornyval (see N. N. R., 1912, p. 49). It is difficulty soluble in water. The action of gynoval is said to be that of a mild nervine and antispasmodic, resembling that of valerian. Dose, 0.25 to 0.50 gm. (4 to 8 grains) two to four times daily, best given after meals. Gynoval is marketed in the form of gynoval pearls, containing 0.25 gm. (4 grains) gynoval. Farbenfabriken of Elberfeld Co., New York (*Jour. A. M. A.*, Feb. 10, 1912, p. 411).

Exsiccated Sodium Succinate (Sodii Succinas Exsiccatus) is the disodium salt of succinic acid containing not less than 95 per cent. of anhydrous sodium succinate, $NaOOC.CH_2.CH_2.COONa$. It is a white granular odorless powder, possessing a characteristic saline taste. It is readily soluble in water. It is a saline cathartic claimed by some to have an antiseptic action in the biliary tract and to be useful in combating infections of the gall-bladder and biliary passages. Dose, 0.3 gm. (5 grains) three or four times a day. Manufactured by Fairchild Bros. & Foster, New York and by Merck & Co. (*Jour. A. M. A.*, Feb. 24, 1912, p. 554).

REFORM IN MEDICINES

The Proposed Royal Commission on Quackery.—There seems to be little doubt that the propaganda against "patent medicines" in Great Britain has reached the stage where a royal commission will be appointed to investigate the nostrum evil. While the recommendation for the appointment of such a commission has been fathered by the British medical profession it is probable that the medical profession of Great Britain will not be held entirely blameless for the very evil it deplores (*Jour. A. M. A.*, Feb. 3, 1912, p. 349).

Duffy's Malt Whiskey Advertisements.—Certain newspapers are carrying advertisements which claim "Duffy's Pure Malt Whiskey Cures Consumption," "The greatest known heart tonic," "It stimulates the blood," "Cures asthma." What do you think of newspapers that will sell advertising space to such a fraud as the Duffy Malt Whiskey concern? What do you think of medical journals that will carry advertisements for the same fraud? The following carry Duffy's Malt Whiskey advertisements: *Buffalo Medical Journal, Massachusetts Medical Journal, Medical Standard, Medical Summary and Medical Brief* (*Jour. A. M. A.*, Feb. 3, 1912, p. 350).

Honors Are Even.—Among those who shared in the honors distributed on the occasion of the Durbar ceremony were two British "patent medicine" exploiters, who have now received the order of knighthood from King George. This reminds one of that genial personage whose relationship to the Duffy's Malt Whiskey outfit and the canning company that sold short-weight products has often been the subject of comment and whom a free people elected to the vice-presidency of the United States (*Jour. A. M. A.*, Feb. 3, 1912, p. 351).

Oleum Telesphoros.—Albert P. Mathews, Ph.D., professor of physiologic chemistry in the University of Chicago, points out that this proprietary, which is

recommended for use in abdominal surgery for the purpose of preventing adhesions, appears to be "oleo oil" or "oleomargarine." Sarcastically he suggests: "The statement that, being derived from the omentum and appendices epiploicæ, it is hence 'no more than natural that one of its greatest spheres of usefulness should develop in its application to abdominal surgery,' will carry great weight with those who believe that kidney beans are a panacea for kidney disease and that lunacy is due to the moon" (*Jour. A. M. A.*, Feb. 3, 1912, p. 363).

Petrogen and Creosote Petrogen.—Petrogen is essentially a mixture of liquid petrolatum and soap liniment. As an improvement on creosote petrogen the following formula has been proposed for creosote petroxolin for the National Formulary: Creosote 20 gm., oleic acid 5 gm. and liquid petroxolin 75 gm. (*Jour. A. M. A.*, Feb. 3, 1912, p. 363).

Salicylates in Scarlet Fever.—The recommendation of Mr. F. G. Crookshank (*Practitioner*, Dec., 1910) to administer salicylates or salol to scarlet fever patients as a routine treatment to prevent occurrence of rheumatism as a complication appears to have appealed to medical journals. Joint rheumatism is a rare complication of scarlet fever, while nephritis is a frequent one and drugs that are used to prevent an improbability should not be so irritant as to aid in producing a frequent probability. It should be remembered that salol (phenyl salicylas) is a compound of phenol and salicylic acid, into which component parts it breaks up in the intestine and hence is liable to cause phenol poisoning (*Jour. A. M. A.*, Feb. 10, 1912, p. 411).

Ozone Myths.—Seaside and mountain resorts alike have benefited by the reputation of "ozone in the air." The honest manufacturer and the medicine faker have both been alert to avail themselves of the opportunity for public service, so that "ozonizers" and "ozonized" products are displayed in abundance. It had been hoped that inhalation of ozone-laden air might facilitate oxidation in the tissues, and especially advantageous results were looked for in such conditions as pulmonary tuberculosis, but altogether the results of experiments are disappointing; on the one hand ozone is not the harmless, innocuous agent which certain fakers have tried to make us believe, and on the other hand inhalations of ozone are much less effective than was thought. Taken altogether it may be said that the value of ozone as a curative agent remains to be proven (*Jour. A. M. A.*, Feb. 10, 1912, p. 412).

Effect of Strychnin on Blood-Pressure.—Opinion is divided on the question whether or not the administration of strychnin is followed by a rise in the arterial blood-pressure. Evidently, the clinical effects of strychnin are in need of further investigation. Exact clinical observations by accurate methods, under a variety of conditions, are needed. Such a study is now being undertaken by a committee of the Council on Pharmacy and Chemistry (*Jour. A. M. A.*, Feb. 10, 1912, p. 414).

Stuart's Plas-tr-Pads.—Adhesif Plas-tr-Pads, formerly called "Adhesive Hernial Plaster Pads," are sold by the Plapao Laboratories, Inc., formerly "The Stuart Plaster Pad Company." It is a "rupture cure." Stuart's Plas-tr-Pads consist of a strip of adhesive plaster with a small pad containing a simple ointment. According to a report from the Association's Chemical Laboratory it is a lanolin ointment containing tannic acid and perfumed with oil of pine needles, or some oil with a similar odor and colored dark brown (*Jour. A. M. A.*, Feb. 10, 1912, p. 425).

Nostrums Abroad.—Two recent publications show that the need for restrictions in the sale of nostrums is felt everywhere. A Russian publication, "Where Is The Truth" by Dr. Sokoloff, discusses the means which are being used in Russia to curve the nostrum evil, namely a government control and a requirement to declare the composition of all medicines sold to the public. The other is the first of a series of pamphlets published by the Central Bureau of Medical Advertising in Sweden. In it the author, Professor Thunberg of Lund, devotes some fifty pages to a plain talk to the public and discusses the absurdity of patent medicines and the ready-made diagnosis. While in Russia a part of the method of attack is the autocratic restriction of nostrum advertisements in more democratic countries, on the other hand, the growth of public opinion has to be depended on (*Jour. A. M. A.*, Feb. 17, 1912, p. 486 and 510).

Proprietary Manufacturers Combine.—The "patent-medicine" makers long ago realized the value of organization, and combined to form the Proprietary Association of America, which organization has opposed the enactment of laws that should protect the public from the evils of nostrums and quackery. Now the manufacturers of "ethical proprietaries" have organized and formed the National Association of Manufacturers of Medicinal Preparations. This organization, like its "patent-medicine" prototype, has apparently been created with but one object in view, to make money. The association went on record as opposing the modification of the Food and Drugs Act, recommended in President Taft's special message, which would prevent "cancer cure" fakers and others in similarly disreputable businesses from publishing lies on the labels of their nostrums, the Mann bill, which would regulate the transportation of habit-forming drugs, Senate Bill 4727, which would require the weight or measure of all drugs sold in package form to be printed on the label (*Jour. A. M. A.*, Feb. 17, 1912, p. 487).

Woods' Cure for Drunkenness.—Edward J. Woods sells from 534 Sixth Avenue, New York City, a mail-order cure for drunkenness; from 1269 Broadway of the same city, he sells a mail-order cure for bald heads as well as a preparation to take the kinks out of the negro's hair. Woods sometimes advertises under the name of a stool-pigeon, Dr. Mary E. Webb of Boston. An examination of Woods' nostrum showed that it consisted essentially of tartar emetic and sugar of milk. Woods was recently arrested in New York City for the illegal practice of medicine and was fined the maximum penalty, $500. In closing it is stated: "Knowing that the chances are not one in a thousand that those who are, in their ignorance, trying secretly to cure members of their immediate family of alcoholism, will be willing to risk the publicity that a demand for the return of their money would bring, Woods calmly continues his nefarious trade unmolested and unafraid" (*Jour. A. M. A.*, Feb. 17, 1912, p. 502).

Identifying the Manufacturer.—The National Association of Manufacturers of Medicinal Preparations apparently is opposed to legislation in the interest of public health and safety whenever such legislation would result in decreased profits for the manufacturers. Besides opposing the law that would prohibit the making of exaggerated and misleading therapeutic claims, the law that would regulate the transportation of habit-forming drugs, the law requiring the weight of drugs, sold in package form, to be printed on the label, it is also opposed to a law that would compel the manufacturers of all medicinal preparations to put their own names on their own products. Those who are familiar with pharmaceutical trade know that very many patent medicines are made by our large pharmaceutical houses and hence it will be understood why this association is opposed to any law that would permit the public, and particularly the medical profession, to know the class of trade some of its members cater to. Further, those who have followed patent medicine exposures will not be surprised to learn that the secretary of the National Association of Manufacturers

of Medicinal Preparations characterized the bill which would permit the public to identify the manufacturer as "a foolish provision," or that the president of this organization should look on the bill as one "that we can conscientiously oppose." As an illustration of the strange bed-fellows made by politics and the nostrum business it is noted that the president of this organization, who thus opposes a law that would throw light on the connection between pharmaceutical manufacturers and the "great American fraud," was nominated for his position by a manufacturer who has long shouted from the house-tops that he made "no dope for quackery" (*Jour. A. M. A.*, Feb. 24, 1912, p. 559).

Formamint Tablets Advertised to the Public.—While in the United States Formamint tablets are advertised in medical journals only, in England they are exploited to the public. It is reported that in Canada they are now advertised in the lay press as a typical patent medicine. Formamint tablets are evidently another illustration of the natural course of events, namely the "ethical" remedy of to-day is the "patent medicine" of the future (*Jour. A. M. A.*, Feb. 24, 1912, p. 562 and 572).

Agar in the Treatment of Constipation.—Dudley Roberts finds it of great value in many forms of constipation. It is also of value in the treatment of certain forms of diarrhea. When ingested it causes scarcely any discomfort, and is in no way irritating to the intestine. When taken for constipation it stimulates peristaltic activity by its bulk but no habit is established. Roberts has found the dose to be four to eight teaspoonfuls, while adults like the finely cut agar, children prefer the ground variety in cereals. It may be taken dry from a spoon and washed down with fluid or is taken with vegetables, cereals and cooked fruits or with thick sauces. It may also be mixed with the dough of cakes, biscuits and cookies just previous to baking (*Jour. A. M. A.*, Feb. 24, 1912, p. 573).

A Shotgun Formula.—In response to an inquiry as to the quantities of peroxid of zinc, powdered alum, oxid of zinc, ichthyol, phenol, menthol and aromatic oils, to be combined in an ointment, the following criticism is made: It is a combination of sedatives and stimulant or irritating substances, not all of which are likely to be serviceable in the same case. The use of such a mixture can hardly be regarded as proper treatment either for a condition which requires a sedative or for one which requires a stimulant; and the routine prescribing of such shotgun mixtures is almost as reprehensible as the use of nostrums (*Jour. A. M. A.*, Feb. 24, 1912, p. 578).

Food and Drugs Act Convictions.—The following are frauds exposed under the Food and Drugs Act:

Hoxsie's Croup Remedy.—"Dr. A. C. Hoxsie's Croup Remedy," Kells Co., Newburgh, N. Y., was sold under the claim that it would cure diphtheria and consumption as well as croup, whooping-cough, colds, etc. (*Jour. A. M. A.*, Feb. 17, 1912, p. 503).

Coca Calisaya.—Cassebeer's Coca Calisaya, Shepard Pharmacal Co., was found to contain over 42 per cent. alcohol, together with sugar, cocain, quinin and other alkaloids (*Jour. A. M. A.*, Feb. 17, 1912, p. 503).

Morse's Cream.—Morse's Cream, Hazen Morse, New Rochelle, N. Y., was said to be a "Cod-Liver Oil Cream" which was "artificially digested" and to possess "10 times greater nutritive value than cod-liver oil." The analysis showed the preparation to be an ordinary cod-liver oil emulsion containing 39 per cent. cod-liver oil and not 67 per cent. as claimed and which had not been artificially digested (*Jour. A. M. A.*, Feb. 17, 1912, p. 503).

Ferro-China Antimalarico.—Although said to be prepared from the "best quality of quinin" and sold as a "cure and preventive of malaria" analysis showed that it contained no quinin (*Jour. A. M. A.*, Feb. 24, 1912, p. 571).

Wells' Hair Balsam.—While claimed not to be a dye and to contain nothing harmful to the hair or scalp, analysis showed it to be a perfumed mixture of sulphur in a watery solution of lead acetate (sugar of lead) and glycerin (*Jour. A. M. A.*, Feb. 24, 1912, p. 571).

Laxative Boro Pepsin.—While the name of this nostrum would suggest that it possessed the therapeutic and medicinal properties of boron and pepsin, chemical analysis was unable to detect either substance (*Jour. A. M. A.*, Feb. 24, 1912, p. 571).

Kennedy's Worm Syrup, Cherry Balsam and Herculin Tonic.—These products were made by the Dr. David Kennedy Company, Rondout, New York. The "Worm Syrup" while claimed to be perfectly harmless was found to be a solution of santonin (partly deposited), sugar and oil of anise in a mixture of water and alcohol. "Cherry Balsam" was a "consumption cure" claimed to be "harmless." It was found to contain alcohol, opium, bitter almond oil and sugar. "Herculin Tonic" is a typical cure-all.—Analysis showed: alcohol, 16.00 per cent., quinin 0.065 per cent., sugar 19.98 per cent., water, glycerin and undetermined matter 64.765 per cent. The only medicinal constituent found by analysis was quinin and this only to the extent of .06 per cent. (*Jour. A. M. A.*, Feb. 24, 1912, p. 571).

The Missouri song — another verse:
Every time I go to town
The other Docs knock my practice aroun';
Makes no difference if I *am* out o' town —
They gotta quit knockin' my practice aroun.'

The Anti-Vivisection Club, Fathed, Ind., sent in a year's subscription to *Life*. What would *Life* be without a fad to appeal to the inconsistent!

Eb. Tazwell of Morgan County is the stingiest, meanest man we know. Instead of cleaning up his outhouses, he had his physician give the entire family doses of typhoid vaccine.

Doc. Good of Stringtown, usually called "Deacon Good" because he wears a white tie and

is strong as a church member, has just been operated for hernia by one of the professors of surgery at the Indiana University School of Medicine. Doc says he got a good job and that he would send his patients there for operations if he could afford to recommend a surgeon who does not divide the fee. Doc says he thinks most all diseases should be treated by surgery.

When Percy McFall graduated and decided on a location to practice medicine his father sent him a check for $1,000 and asked that Percy itemize his expenditure of that amount. Four days later his father received the following: "Dear Father: The thousand went rather quickly and will need $20 immediately. According to your instructions I have itemized expenditure of the check as follows:

Desk and two chairs	$25.00
Office rental	15.00
Medicines, cotton and bandages	10.00
Moving expenses, fixtures, lights, etc.	5.00
Runabout, completely equipped	945.00
Total	$1,000.00

Constant Reader: There are two kinds of charged water: i. e., the kind that fizzes and is used as a vehicle for drinks, and the kind you get from the doctor on credit.

"Nature's Creation," which has been exposed by *The Journal of the A. M. A.* and shown to consist mainly of a weak solution of KI, is having immense sales at $5 per bottle. Which makes our thoughts turn to P. T. Barnum's famous expression!

Dr. Nervesly Thinn has accepted the position of house physician to an Indianapolis hotel, and expects to take on considerable weight this winter. His office will be in the café.

Dr. Shay Muffelby, who recently located in Swamsville, attended a local dance wearing evening clothes and was not recognized until after 11 o'clock, the natives mistaking him for a member of a theatrical troupe which had arrived that day.

At a meeting of the Toothill County Medical Society last week, Dr. Freelip, of Askus, Ind., read a paper on "Occupational Diseases," presenting as a clinic, at the same time, a messenger boy with running sores on his feet.

Motto for young physicians, now doing extensive credit business, which hangs on our wall: "Konsider the Bull Pup, my son: His usefulness consists in his ability to *Stick*."

Neurasthenia.—A name given to a condition of which we find ourselves ignorant.

Psychotherapy.—A name sprung by the medical profession in order to beat the quacks to it. Properly used, it means something. Popularly used, it means nothing.

Latin.—A dead language useful to cover badly written and ill-spelled prescriptions.

Quack.—A name sometimes given to the other fellow when we think he is growing too bold about going after business.

Lodge.—Often a place where you give the grip of fellowship and brotherly love to a sneak you would enjoy clubbing.

Home.—A delightful place where long tarrying is forbidden if you be an M.D.

Physician.—A badly paid, self-sacrificing, poverty-stricken poor devil who keeps on wearing out his bearings only because men love him and depend on his time-tried judgment.

DEATHS

Mrs Martha Denny, widow of Dr. William Denny, of Greencastle, died February 14, aged 72 years.

Mrs. A. P. Buchman, wife of one of Fort Wayne's prominent physicians, died February 15, of paralysis, aged 64.

Dr. Robert A. Bunch, aged 58, died at his home in Muncie February 16, after a long illness, due to a fall from his buggy over a year ago.

The death notice of Dr. Charles H. Abbett in the February number was in error in giving Dr. Abbett's address as Muncie. His residence was in Indianapolis.

Dr. James W. Crismond died at his home in Anderson February 24 from cerebral hemorrhage,

aged 65. He was a member of the Madison County Medical Society.

Dr. Blaine Empson, a graduate of Kentucky University, Louisville, 1905, a member of the A. M. A., died at his home in Dudleytown, January 10, from tuberculosis, aged 30.

Dr. Maria Louisa Holloway, formerly a member of the Indiana State Medical Association, and a practitioner of Decatur, Ind., died at the home of her daughter in Branson, Mo., January 16, from nephritis, aged 75.

Dr. Nelson G. Smith, a veteran of the Civil War; for fifteen years a member of the faculty of the Eclectic Medical College, Indianapolis, died at his home in Seymour, January 20, from cerebral hemorrhage, aged 63.

Dr. M. M. Hale, for thirty years a practitioner of Wabash, died February 26 from heart disease, aged 65. He was born in Wabash County in 1846, graduated from Rush Medical College in 1870, practiced in LaGro eighteen years, and removed to Wabash in 1885, practicing there until his death.

Dr. Adolf Carl Holtzendorff died at his home in Plymouth, February 18, aged 72 years. Dr. Holtzendorff was born in Hamburg, Germany, July 19, 1839, coming to the United States when about 21 years of age. He lived for a time in New York and in New Jersey, later going to Chicago, and coming to Plymouth about 1870. He graduated from the Fort Wayne Medical College in 1879. He was a member of the Indiana State Medical Association and A. M. A.

Dr. Morton L. Hunt, a well-known physician of Winchester, died February 21, following an extended illness due to blood poisoning, aged 31 years. Following the completion of his common school education in Winchester, he went to Purdue University, later attending Rush Medical College, Chicago. After his graduation he went to Akron, Ohio, where he was surgeon in one of the hospitals. Two years ago he came to Winchester, forming a partnership with his brother, Dr. Bader S. Hunt. Dr. Hunt discovered the second case of pellagra in Indiana.

Joseph, Baron Lister, pioneer in antiseptic surgery, died at his home in London, England, February 11, aged 84. He was born in Upton, Essex, April 5, 1827, the son of Joseph Jackson Lister, a London merchant, who occupied his leisure with study and work on the microscope. He was created baronet in 1883, was made first Baron Lister in 1897; was surgeon extraordinary to the late Queen Victoria and sergeant-surgeon in ordinary to King Edward VII. He was president of the Royal Society from 1895 to 1900 and of the British Association for the Advancement of Science in 1896. He received the honorary degree of M.D. from the universities of Dublin, Wurzburg, Bologna, Budapest and Geneva; that of LL.D. from Edinburgh, Glasgow and Cambridge; that of D.C.L. from Oxford, and in addition had conferred on him the Grand Cross of the Order of Dannebrog by the King of Denmark; the Prussian Order of Merit and was made a member of the Privy Council.

NEWS, NOTES AND COMMENTS

Dr. James A. Rawley, Brazil, had a narrow escape from drowning, January 18.

Dr. John Ott, Indianapolis, celebrated his eighty-seventh birthday January 14.

Dr. J. M. Shields and wife, of Seymour, spent the month of February in Panama.

Dr. Albert T. Ingalls, formerly of Elkhart, has recently moved to Chattanooga, Tenn.

Dr. Aaron Kern of Wabash is preparing to remove to Lafayette, where he will practice.

Dr. Charles Stoltz and Mr. Adam Nelson Shidler of South Bend gave a buffet dinner, February 16.

Dr. David Cohen, Jeffersonville, and Miss Tillie Strull, Louisville, Ky., were united in marriage January 31.

Lawrenceburg was visited by epidemics of scarlet fever, diphtheria and small-pox during the month of February.

Dr. W. A. Domer, recently elected president of the Wabash County Medical Society, is spending a month in Los Angeles, Cal.

Dr. Edward F. Wagner, Fort Wayne, who was operated recently at St. Mary's Hospital, Rochester, Minn., has returned home convalescent.

Judge Carter, of the superior court, Indianapolis, has recently decided that the medical witnesses in insanity inquests are entitled to $3 a day under the law.

Dr. Henry Jameson has recently been reappointed by Mayor Shank as a member of the Indianapolis Board of Park Commissioners for a term of four years.

A state-wide campaign for funds to build a nurses' home and a new north wing for the Methodist Hospital, Indianapolis, has recently been inaugurated. The goal will be $150,000.

St. Joseph Hospital, Fort Wayne, has let the contract for a $150,000 addition which it is intended will make the hospital one of the best-equipped and most modern institutions of the kind in the state.

Indianapolis has a case of leprosy, discovered by Dr. Nelson D. Brayton, the diagnosis being concurred in by Dr. A. W. Brayton. The clinical examination was supplemented by several bacteriologic examinations.

A children's dispensary will be erected at the Fairview Summer Mission, Indianapolis, for sick children, with $1,000 given the mission by the Alfred Burdsal estate. It is hoped to have the building ready for service by the middle of June.

Dr. A. R. Burton of Princeton, while making a night call February 15, fell striking his head, some of the fragments of broken bone penetrating the brain. Following a prompt operation, attending physicians held out a slight hope of recovery.

Dr. C. S. Woods, Indianapolis city sanitarian, is well pleased with the results attained during the recent campaign against the dirty bread box in that city. Practically all of the baking companies in the city have signified their intention of doing away with boxes.

In the eight-story building to be erected by the Indiana National Life Insurance Company in Indianapolis, accommodations will be furnished sufficient for 150 of the medical practitioners of the city. Six of the eight floors of the building will be devoted to offices for physicians.

Dr. J. J. Grosvenor has resigned as an intern at the city dispensary to accept a position at the Indiana reformatory at Jeffersonville. Dr. Grosvenor has been succeeded at the dispensary by Dr. Robert C. Johnson, who will be assigned as assistant ambulance surgeon.

Health week was observed in Crawfordsville the week beginning January 15, under the auspices of the State Health Department. John Owens, deputy food and drug inspector, was in charge of the pure food exhibit, and delivered addresses on pure food problems daily.

Dr. J. N. Hurty lectured at Bloomfield, February 22, in connection with the week's campaign for good health and pure food, conducted under the auspices of the State Board of Health. Dr. H. B. Leavitt, superintendent of the tuberculosis hospital at Rockville, lectured on the fight against tuberculosis.

At the annual meeting of the State Board of Medical Registration and Examination held in Indianapolis, Dr. James M. Dinnen, Fort Wayne, was elected president; Dr. William A. Spurgeon, Muncie, vice-president; Dr. William T. Gott, Crawfordsville, secretary, and Dr. Moses S. Canfield, Frankfort, treasurer.

Forty-five cases of tuberculosis were reported to the Indianapolis City Board of Health in January. Reports of other contagious diseases for the month are as follows: diphtheria, forty-two; typhoid fever, thirteen; chicken-pox, fifty; whooping-cough, one; small-pox, one; measles, 117 and scarlet fever, twenty-three.

Dr. J. N. Hurty delivered an address on "Conservation of the Human Race" at the recent meeting of the Illinois Academy of Science, held

at Bloomington, February 23 and 24, and also addressed the Jefferson County Medical Society (Kentucky) at Louisville, February 19, on the subject "The Future Hygiene."

Citizens of Linton held a mass meeting recently and decided to form a hospital association to buy the home of Job Freeman for hospital use. The home, which cost Mr. Freeman $45,000, will be purchased for $18,000. Mr. Freeman will also contribute $5,000 cash. Money to purchase the property is to be raised by popular subscription.

Dr. J. W. Birchfield of Indianapolis has recently been added to the field force of the State Board of Health. Dr. Birchfield will devote most of his time to supervising medical inspection in the public schools, where it has been introduced under an act of the recent general assembly. He will also, under the direction of Dr. Hurty, assist county and city and town health commissioners whenever help from the state office is required.

The will of the late John Peter Kile, a wealthy retired merchant of Lafayette, provides a legacy of nearly $100,000 for the Lafayette Home Hospital. The Home Hospital was organized in 1895, and in 1899 Mr. Kile made his first donation to that institution, between $15,000 and $20,000 in cash, with which the main building of the hospital was erected. From that time on he continued to give generously to the institution.

The trustees of Indiana University School of Medicine are contemplating the introduction of a course in public health training which will fit the student for a degree to be known as doctor of public health. The details of the proposed course have not been completed, but sanitation and medicine as applied specifically to disease prevention are to be emphasized. It is planned to make the course follow the regular course as postgraduate work.

The beautiful St. Vincent's Hospital on North Illinois Street, Indianapolis, will be ready for occupancy September 1. There will be 250 beds and separate departments for special cases. The present building on South Street will be used for emergency work. The number of Sisters and nurses will be 140. The training school for nurses will be at the new building. The cost of the ground, building and equipments will be about $1,000,000. It will be one of the best hospitals in the United States.

The Children's Aid Association, Indianapolis, has recently moved into new quarters on the fourth floor of the Baldwin block. It has been for the last three years on the third floor. The purpose of the move is to provide a suitable room for the baby dispensary that will be opened this summer. A trained nurse will be at the dispensary and Dr. E. B. Mumford will be in direct charge. Clinics will be held there, and sick babies needing special treatment will be taken there by their mothers to spend the day.

Louis Fisher, in *The Journal of the A. M. A.* of January 13, says that the recurrence of adenoid vegetation after thorough curettage of the rhinopharynx suggests a diseased soil, and oftentimes a syphilitic history. In all cases tonic treatment and proper dietary and hygienic regulations are indicated, and in not a few of the cases specific treatment should be employed. We must not be satisfied with a negative clinical history regarding syphilis but must confirm our suspicion by a positive Wassermann reaction.

At the regular meeting of the Vanderburg County Medical Society, February 13, a committee of five was appointed to devise ways and means by which a doctors' club may be established in Evansville. The primary object in the establishment of such a club is to enable its members to carry on research work. It is the plan of the doctors to collect a library that will represent an outlay of $2,000. A modern laboratory will be fitted up in which the research work will be done. Those on the committee are Drs. Will Davidson, A. M. Hayden, M. Ravdin, G. W. Varner and W. S. Ehrich.

The Indiana State Board of Health says it will appeal to the Supreme Court the question of whether a lower court can throw out an affidavit for the sale of dirty milk on the ground that the milk was not sold for human food, but was purchased by an agent of the State Board for the purpose of analysis. In a recent case before Judge James F. Gallaher, of Laporte, an indictment was quashed on such grounds, the court holding the affidavit should have set out that the milk was to be used for human food.

H. E. Barnard, chief chemist for the State Board of Health, said the pure food law did not require such an allegation in the affidavit, as the law defined food so as to include foods for man or other animals. The Laporte case is the first in which the question has been raised.

Dr. William Cuthbertson, in *The Journal of the A. M. A.*, January 6, says that in cacodylate of soda we have a valuable therapeutic agent for the treatment of cases of erythema, more especially those of the angioneurotic type. He says that from the failure of Fowler's solution of arsenic to affect the lesion favorably, and the success of the arsenic treatment in the form of cacodylate of soda injected intramuscularly, it would be reasonable to suppose that Fowler's solution undergoes some chemical change in the stomach, while the cacodylate is absorbed directly into the blood current. He employs the drug in doses of three-fourths gr., given by intramuscular injection. This is given every other day.

The annual report of the food and drug department of the Indiana State Board of Health for the year 1911 shows that during the year 11,594 inspections of food manufacturing or distributing plants were made by the department. Of this total, 214 were reported excellent; that is, to meet every requirement of the pure food law; 6,212 were pronounced good, 4,256 fair, 741 poor, and 171 bad. The percentage of places listed as good was much higher than for any previous year, and the number of places listed as bad is relatively low. Improvements were noted in virtually all classes of plants except the dairies, which showed little or no improvement. During the year 199 dairies were visited and only one was reported in excellent condition. Only nineteen were pronounced good; sixty-two were unqualifiedly bad. Out of 4,325 grocery stores inspected, 108 were found excellent. Only seventeen of the entire number were listed as bad. Of 2,000 meat markets visited, twenty-seven were found excellent and eleven bad.

The erection of the Robert W. Long Hospital is to be started during the coming summer, if present intentions of the Board of Trustees of Indiana University carry. A plan whereby the hospital will not be erected in Military Park, as provided for by the 1911 legislature, was laid before the trustees, February 7, by Governor Marshall. The governor purposes that if the trustees are in favor of beginning work on the hospital at once, to contract for a site to cost $40,000 and take possession of it and start construction work with the understanding that he will recommend to the 1913 legislature an appropriation to pay for the tract. In case the city of Indianapolis will appropriate at least half of the money for the site, he will ask the legislature only for the necessary balance. If the city fails to make such an appropriation, the governor declares, an act of the legislature which he will recommend, will provide for a basis of admission of patients to the hospital whereby Marion County patients must take their turn as in other state institutions, pro rata with those of other counties.

SOCIETY PROCEEDINGS

INDIANA STATE MEDICAL ASSOCIATION

The following is a list of those who have paid Association dues between the dates Feb. 1 and March 1, 1912. The number before each name indicates the number of the membership card issued by Secretary Combs. The list published in the February number includes all those who paid dues to February 1, or up to 1987, inclusive. Errors in name or address should be reported to Secretary Combs, giving number of the membership card in order to facilitate prompt detection of the error on the membership records. The list as published in the January, February and March numbers constitutes the mailing list of The Journal, and any member whose name appears on the published list and who does not receive his journal is requested to write for a duplicate copy.

1988 John J. Hardy, La Paz.....Marshall
1989 Wm. McQueen, Cataract.....Owen
1990 O. K. Harris, Ellettsville.....Owen
1991 W. W. Harris, Ellettsville.....Owen
1992 E. F. Magenheimer, Evansville.....Vanderburg
1993 Geo. W. Twomey, Jeffersonville.....Clark
1994 H. S. Wolfe, New Albany.....Floyd
1995 C. W. Stolzer, New Albany.....Floyd
1996 J. V. Bower, Millersville.....Marion
1997 J. H. Brill, 608 N. New Jersey St., Indianapolis ..... Marion
1998 Henry Lohrman, Newton Claypool Bldg, Indianapolis ..... Marion
1999 J. D. McLeay, 161 N. Illinois St., Indianapolis ..... Marion
2000 M. W. McConnell, Sullivan .....Marion
2001 H. R. Allen, 1320 N. Delaware St., Indianapolis ..... Marion
2002 E. DeWolfe Wales, Hume-Mansur Bldg., Indianapoils ..... Marion
2003 S. L. Egart, City Hospital, Indianapolis.Marion
2004 Paul F. Robinson, 114 S. Noble St., Indianapolis ..... Marion
2005 A. L. Wilson, I. O. O. F. Bldg., Indianapolis ..... Marion
2006 A. H. Failey, Crown Point .....Lake
2007 V. A. Lapenta, Newton Claypool Bldg., Indianapolis ..... Marion
2008 J. P. Simonds, State Board of Health, Indianapolis ..... Marion
2009 J. H. Oliver, 422 N. Delaware St., Indianapolis ..... Marion

2010 C. S. Goar, 1034 S. Meridian St., Indianapolis ..... Marion
2011 Lillian B. Mueller, Pennway Bldg., Indianapolis ..... Marion
2012 Daniel W. Layman, Hume-Mansur Bldg., Indianapolis ..... Marion
2013 F. A. Tabor, Terre Haute.....Vigo
2014 A. L. Cabell, Terre Haute.....Vigo
2015 E. R. Churchell, Richmond .....Wayne
2016 Mary Van Nuys, Lebanon.....Boone
2017 P. B. Little, Whitestown .....Boone
2018 C. D. Umberhine, Lebanon R. D. 9.....Boone
2019 A. P. Fitch, Crawfordsville.....Boone
2020 W. R. Arthur, Gary .....Lake
2021 J. A. Chevigny, Dyer .....Lake
2022 G. W. Gannon, Gary .....Lake
2023 F. C. Robinson, Martinsville.....Morgan
2024 Bine Whitlatch, Pierceville.....Ripley
2025 A. I. Whitlatch, Pierceville.....Ripley
2026 P. W. Irons, Frankfort.....Clinton
2027 D. E. Cripe, Hillisburg .....Clinton
2028 J. E. Robinson, Rossville.....Clinton
2029 J. W. Hadley, Frankfort.....Clinton
2030 Chas. Chittick, Frankfort.....Clinton
2031 A. G. Chittick, Frankfort.....Clinton
2032 I. C. Lambert, Colfax .....Clinton
2033 W. J. Fernald, Frankfort.. .....Clinton
2034 S. B. Sims, Frankfort.....Clinton
2035 N. W. Clark, Rossville.....Clinton
2036 M. F. Boulden, Frankfort.....Clinton
2037 M. T. McCarty, Frankfort.....Clinton
2038 Oliver Gard, Frankfort.....Clinton
2039 Moses Thorner, K. of K. Bldg., Indianapolis ..... Marion
2040 Edgar Outland, Newton Claypool Bldg., Indianapolis ..... Marion
2041 Paul B. Coble, Pennway Bldg., Indianapolis ..... Marion
2042 C. Chamberlin, 3215 E. 10th St., Indianapolis ..... Marion
2043 Leslie H. Maxwell, Pennway Bldg., Indianapolis ..... Marion
2044 C. Boekoven, Bryant.....Jay
2045 S. M. Boekoven, Bryant.....Jay
2046 Geo. Cring, Portland.....Jay
2047 Earl Martin, Portland.....Jay
2048 J. E. Whitehill, Rolling Prairie.....LaPorte
2049 James Thomas, Evansville .....Vanderburg
2050 S. C. Wilson, Anderson.....Madison
2051 Lee Hunt, Anderson .....Madison
2052 Wm. P. Harter, Anderson.....Madison
2053 W. W. Kneale, Anderson.....Madison
2054 C. D. Schurtz, Alexandria .....Madison
2055 J. J. Stanton, Logansport.....Cass
2056 O. G. Pfaff, Newton Claypool Bldg., Indianapolis ..... Marion
2057 H. A. Moore, Newton Claypool Bldg., Indianapolis ..... Marion
2058 W. H. Foreman, Hume-Mansur Bldg., Indianapolis ..... Marion
2059 Wm. F. Molt, Newton Claypool Bldg., Indianapolis ..... Marion
2060 C. E. Linton, Medaryville.....Pulaski
2061 O. B. White, Sedalia .....Clinton
2062 F. C. Dielman, Fulton .....Fulton
2063 Geo. E. Hoffman, Rochester .....Fulton
2064 H. N. Oliphant, Forest.....Clinton
2065 I. D. Garrigues, Brookville.....Franklin
2066 L. F. J. Smith, Wabash .....Wabash
2067 C. F. Martin, Boonville.....Warrick
2068 J. Zimmerman, Lynnville.....Warrick
2069 C. C. Kimmel, Fort Wayne.....Allen
2070 W. D. Calvin, Fort Wayne.....Allen
2071 John Hetrick, Fort Wayne.....Allen
2072 S. A. Johnston, Willoughby Bldg., Indianapolis ..... Marion
2073 Henry Jameson, Hume-Mansur Bldg., Indianapolis ..... Marion
2074 Marie Haslep, 2005 College Ave., Indianapolis ..... Marion
2075 E. O. Lindenmuth, Hume-Mansur Bldg., Indianapolis ..... Marion
2076 Lee O. Church, Fritchton .....Knox
2077 D. M. Buley, Vincennes.....Knox
2078 Frank C. Boone, Merom .....Sullivan
2079 L. F. Mobley, Summitville.....Madison
2080 E. W. Longnecker, Anderson.....Madison
2081 Jos. Kunkler, Terre Haute.....Vigo
2082 C. R. LaBier, Terre Haute.....Vigo
2083 D. A. Bethea, Terre Haute.....Vigo
2084 F. G. McCarthy, Terre Haute.....Vigo
2085 C. F. Cluthe, Evansville.....Vanderburg
2086 Chaney Bassett, Thorntown .....Boone
2087 J. R. Ball, Lebanon .....Boone
2088 Z. C. Wolfe, 906 State Life Bldg., Indianapolis ..... Harrison
2089 Thos. P. Govan, 906 State Life Bldg., Indianapolis ..... Harrison
2090 Claude H. White, Monrovia .....Morgan
2091 Chas. F. Peetol, Paragon R. R. 1, ...Morgan
2092 E. S. Knox, 1404 Hoyt Ave., Indianapolis.Marion
2093 Chas. A. Carter, 309 Tocoma Ave., Indianapolis ..... Marion
2094 N. P. Graham, Willoughby Bldg., Indianapolis ..... Marion
2095 N. E. Jobes, Traction Terminal Bldg., Indianapolis ..... Marion
2096 Jas. T. Hazel, Freedom.....Owen
2097 F. V. Stucky, Gosport .....Owen
2098 H. C. Miller, Greentown.....Howard
2099 A. A. Martin, Kokomo R R 1 .....Howard
2100 D. C. Shaff, Clinton .....Vigo
2101 O. O. Alexander, Terre Haute.....Vigo
2102 A. I. Munson, Evansville.....Vanderburg
2103 E. K. Pfaff, Mooresville.....Morgan
2104 M. F. Woodard, Bloomingdale.....Parke
2105 C. C. Morris, Rockville.....Parke
2106 W. A. Gekler, Rockville.....Parke
2107 O. A. Newhouse, Montezuma.....Parke
2108 J. P. Wolf, New Market.....Montgomery
2109 K. K. Stranghan, Waveland.....Montgomery
2110 E. C. Lidikay, Ladoga.....Montgomery
2111 Earl A. Rogers, Somerset.....Wabash
2112 S. C. Lang, Rockport.....Spencer
2113 C. W. Yarrington, Gary.....Lake
2114 E. S. Baker, Lafayette.....Tippecanoe
2115 R. B. McKeeman, Fort Wayne.....Allen
2116 E. M. Van Buskirk, Fort Wayne.....Allen
2117 Weir Miley, Anderson.....Madison
2118 O. W. Brownback, Pendleton.....Madison
2119 E. L. Wiggins, Elwood.....Madison
2120 J. R. Tracy, Anderson.....Madison
2121 W. M. Garretson, Perkinsville.....Madison
2122 T. M. Jones, Anderson.....Madison
2123 S. C. Norris, Anderson.....Madison
2124 E. M. Conrad, Anderson.....Madison
2125 T. J. Stephenson, Lapel .....Madison
2126 Z. M. Beaman, North Manchester.....Wabash
2127 J. Rilus Eastman, 331 N. Delaware St., Indianapolis ..... Marion
2128 Kenneth I. Jefferies, 814 Virginia Ave., Indianapolis ..... Marion
2129 J. P. Boaz, 240 W. New York St., Indianapolis ..... Marion
2130 Wm. F. Johnson, 2102 Sugar Grove Ave., Indianapolis ..... Marion
2131 Robt. E. Repass, Hume-Mansur Bldg., Indianapolis ..... Marion
2132 C. H. McCaskey, American Central Life Bldg., Indianapolis .....Marion
2133 E. D. Shadday, Montpelier .....Blackford
2134 S. G. Smelser, Richmond .....Henry
2135 H. H. Koons, New Castle.....Henry

2136 G. H. Smith, Knightstown ..... Henry
2137 R. A. Smith, Knightstown ..... Henry
2138 D. S. Wiggins, New Castle ..... Henry
2139 S. C. Waters, Middletown ..... Henry
2140 H. W. MacDonald, New Castle ..... Henry
2141 E. K. Westhaver, New Castle ..... Henry
2142 J. A. Tully, Millville ..... Henry
2143 R. L. Lee, New Castle ..... Henry
2144 J. E. Hiatt, New Castle ..... Henry
2145 Mart Hommond, Blountsville ..... Henry
2146 J. F. Ginn, Spiceland ..... Henry
2147 R. T. Van Pelt, South Bend ..... St. Joseph

INDIANAPOLIS MEDICAL SOCIETY

Meeting of January 30

Meeting called to order by president. Minutes of last meeting read and approved. Attendance 49.

President announced the following committees for 1912: Legislation, Public Health and Education. C. S. Woods, chairman, J. N. Hurty, C. O. Durham, J. L. Freeland, W. N. Wishard and T. C. Kennedy; Libraries, Wm. Shimer, chairman, H. C. Parker and R. S. Chappell; Membership, W. D. Hoskins, chairman, T. E. Courtney, S. J. Hatfield, T. J. Dugan, W. T. S. Dodds, E. F. Kiser, K. I. Jefferies, M. J. Barry, H. J. Weil, L. H. Maxwell, L. M. Dunning, J. F. McCool, T. L. Sullivan, and Cameron Chamberlin.

The paper of the evening was read by Dr. H. O. Pantzer, subject "Lane's Kink and Jackson's Membrane." The paper gave a description of Jackson's membrane and Lane's ileal kink, recognizing their etiology as being still moot. Due appreciation was expressed of the bearing enteroptosis has on the production of lesions in question. Mayo's acceptance of their congenital origin is mentioned as a factor. But, more than to either, the essayist turned his thought to an inflammatory origin of the anatomico-pathologic membrane. Has observed it frequently in his own cases at ileocecal site, and in other parts of intestinal tract. His first case, reported to this society, going back to 1896. Writer has methodically looked for and treated this condition for several years before any notice of their special significance appeared in medical journals. Chronic appendicitis, often in form known as obliterating, is most frequently associated with this finding, and, in opinion of author, holds definite etiologic relation to the pathologic membrane found in these cases. He stated that they are much more frequently present than anyone not looking for them, or not conversant with their appearance, can possibly assume; and that their clinical significance lies in the ill effects of intestinal stasis, markedly in their baneful bearing chiefly on the eliminating organs. This effect is described first in the symptomatology, and later in the obstinacy or incurability of the inveterate cases under medical or hygienic treatment. Early clinical recognition is desirable. More than symptoms, evident local conditions are of diagnostic value. Light palpation and palpatory percussion will elicit readily in these cases the presence of a thickened distended cecum reaching down to Poupart's ligament and, medianward, as far as median line or beyond. Quite frequently, especially at times of distress, there can be found a loop of small intestine. This loop, the terminal part of the ileum, in most cases in addition to kinking, is twisted on its long axis. Its peristaltic action is, at all times, more or less interfered with, which eventuates in its being dilated and tender at its proximal end. The comparative safety of modern surgery in skilled hands and under proper hospital appointments makes it imperative to operate early in these cases before excretory organs are foundered. Appendicitis obliterans is not commonly regarded as dangerous. This view should not prevail, for in the dire constitutional effects consequent upon this condition, we must recognize a source of chronic ill health and early demise. An extreme case was given as an example. Under treatment, writer stated that simple transverse division of membrane is all he found necessary in his cases. By the supposition that it is an inflammatory adventitious membrane, this simple division should suffice. The inherent tendency of scar tissue to contract, will have the membrane recede, i. e., the underlying bowel, incident to functional distention and contraction, will do the separation with less disturbance than can be done where this is attempted by the surgeon. The distended, prolonged and dislocated cecum can be found to have receded often in a few days. In long standing cases this retrograde change occurs less rapidly. The medicinal and hygienic treatment of these cases is important. The transient, but good effect of such measures before recourse to operation, goes to show the real etiologic significance of such kinking of the ileal bowel and of such hampering membranes of the cecocolon, as are described in the paper, and at once make argument for their surgical correction.

Opening the discussion, Dr. J. R. Eastman reviewed the variance of ideas concerning cause of membranous pericolitis. There is no satisfactory explanation of all the conditions, but Mayo's opinion of the late descent of the caput colon is most satisfactory. Lane's kink has not been diagnosed previous to operation but has been seen in the course of operations for other conditions. Treatment was discussed.

Dr. G. B. Jackson said that microscopical study of the membrane should enable its nature to be determined.

Dr. Charlton said that Dr. Lane is inclined to invent unusual ideas concerning various things. He had never seen a case, and thinks departure from normal is probably slight.

Dr. A. C. Kimberlin: The condition in Lane's kink probably one of stasis. Clinical fact exists and name does not matter. Surgical possibilities certainly do exist. Diagnosis difficult. Cases come in class of ptosis. Definite surgical treatment necessary.

Dr. Bernays Kennedy: The identity of Jackson's membrane and Lane's kink do exist but is peculiar that the anomalies were not discovered by anatomists. Perhaps the man who does autopsies overlooked the condition.

Dr. M. N. Hadley reported a case of Meckel's diverticulum causing obstruction by prolapse through mesentery of ascending colon. Anatomists do not give accurate descriptions of conditions about head of colon. Membranous pericolitis does exist. Case was reported. Origin not believed to be embryological.

Dr. Burckhardt: The membrane might easily disappear post mortem. Origin probably inflammatory. Condition mechanical and brings up the study of a variety of conditions.

Dr. J. A. McDonald: The clinical interpretation of the condition is difficult. If embryologic explanation as to cause is accepted, precipitation of symptoms must be due to atonic muscular changes and bacterial invasion. Treatment must be directed to the maintaining of muscular integrity and correction of constipation.

Dr. Noble: The condition likely to be inflammatory. Clinical recognition is interesting. Lane's kink represents intestinal block. Case of appendicitis with kink in process of formation was reported. Cases are surgical but require close study. Study of neurasthenics can furnish the diagnosis of most any condition.

Dr. Emerson: Skiagraphs show the whole colon to be involved in cases of chronic constipation. The membrane and kink do exist. Clinically they are not understood.

Dr. Pantzer, closing: The last word has not been spoken concerning these conditions. Bands cause retention of fecal masses that are cleared out with difficulty. Pathology probably varies with the case. Anatomists do not describe details until clinicians see possibilities in pathology.

Adjourned. Homer R. McKinstray, Secretary.

Meeting of February 6

Meeting called to order by president with 49 members present. Minutes of last meeting read and approved.

Library committee reported a gift of fifty dollars from Eli Lilly & Co. Society voted that secretary write donors expressing the thanks of the society.

Dr. Jobes, chairman of Committee on Revision of By-Laws, reported that committee had completed its work and submitted a final report. Society voted to empower committee to order printing of new by-laws and include a historical sketch concerning society. Drs. Wynn and Brayton were appointed to act in an advisory capacity.

Application of Dr. J. W. Ricketts was read second time and referred to Council. Council reported recommending election of Drs. V. A. Lapenta and Lillian B. Mueller to active membership and Dr. Wesley Allen to honorary membership. Report accepted.

The appointment of following staff at Colored Orphans' Home was reported: Medicine Drs. E. B. Mumford and Amelia Kellar; Nose, Throat and Ear, Drs. F. V. Overman and Paul B. Coble; Eye, Drs. W. N. Sharp and W. F. Hughes.

Program consisted of case reports. Dr. J. F. Barnhill reported "Anomalous Cases of Mastoiditis." It is a common belief that aural discharge, mastoid pain with redness, swelling and pain are necessary symptoms in mastoiditis. They are not always present. It appears as if mastoiditis is sometimes a primary affection. Following cases reported: Case 1. Child, 10 months of age; ill three weeks with high temperature; edema toward occiput. Incision showed no pus. No evidence of ear involvement, but it was believed by attending physician that there was sinus trouble. Operation showed a peri-sinus abscess. Case 2. Patient had been ill three weeks with pain over mastoid region and side of face. No ear discharge at any time. Swelling and tenderness of mastoid. A subperiosteal abscess was found at operation with no involvement of middle ear. Case 3. Male, aged 65, with otitis media three months previous which had cleared up leaving condition of sepsis. Pain present in neck on same side as the otitis had been. Hearing normal and no disease of drum; no evidence of mastoid trouble: neck muscles rigid and tender. One and one-half inches below mastoid was an area of redness. Tip of mastoid was removed and a perforation leading into the digastric fossa was discovered. Pus found deep in neck toward carotid.

Dr. H. C. Alburger reported clinical history and pathological findings in two cases of pontine tumor. Case 1. Girl, aged 8. Injury in April, 1911, to head. In following June nervous disturbances began with headache, impairment of walking and weakness of one side of body. Later there was difficulty in swallowing and in eye movements. Stupor developed gradually. No optic neuritis at any time. Death in September. Autopsy showed infiltrating glioma of the pons. Case 2. Albanial laborer. Ten months previous to entrance to hospital his illness began with an acute febrile disturbance. At time of admission he complained of uselessness of left side. There was partial paresis of left arm and leg which increased gradually. Pain sensation delayed. No optic neuritis or headache of any consequence. After several months paralysis of right side of face developed. Some of the ocular muscles were also involved. Nausea and vomiting appeared. All symptoms were progressive. Coma finally appeared, followed by death. Autopsy showed a circumscribed tuberculous nodule of the pons. Specimens exhibited.

Opening discussion, Dr. Louis Burckhardt: General practitioner can often make a diagnosis of middle ear complications earlier than specialist. The attitude, character of the cry and general condition of patient will indicate complications to the man in general work. A child will indicate seat of trouble by holding hand to ear. Face muscles may be contracted on affected side. A septic temperature completes diagnosis even though other signs are absent.

Dr. Brayton mentioned the fact that Dr. Harvey had taught the value of character of child's cry in otitis media.

Dr. Tomlin: Children often indicate seat of their troubles more definitely than adults. Pain in otitis media is not always continuous. Usually temperature is not high.

Dr. Wynn reported a case that had a low temperature with pain in mastoid with septic appearance. No other signs of mastoid disease. Blood examination showed 80 per cent. of polynuclears. Question of surgery.

Dr. Humes: Case reports with pathology demonstrated are valuable. A case of brain tumor was reported. It is unfortunate that nothing can be done for such patients.

Dr. Hadley inquired if choked disk were not ordinarily present in cases of pontine tumor.

Dr. Jobes: Operation not indicated in cases reported since there was no increase of intra-cranial pressure or pulse tension. Decompression would have done no good. An attempt at removal would have been unsuccessful. Choked disk does not occur unless there is increased intra-cranial pressure.

Dr. Barnhill, closing: Typical cases of mastoiditis do not have all of the signs or symptoms. Increase of temperature, pain or swelling may be absent. Swelling is a late sign except in children. Diagnosis by exclusion is not definite enough to warrant a serious operation. General practitioner's opinion is valuable.

Adjourned. Homer R. McKinstray, Secretary.

Meeting of February 13

Meeting called to order by president. Reading of minutes dispensed with. Applications of Drs. W. S. Given and Frederick Hersham were read for first time.

The paper of the evening was read by Dr. G. D. Kahlo, on the subject, "The Bath as a Therapeutic Agent."

Opening discussion, Dr. A. E. Sterne: The ancients appreciated the value of the bath as an anesthetic and as a prophylactic measure. Rest is an important element. Baths in a natural environment of most benefit. Radio-activity which is but little understood, probably explains this fact. Cold applications should be used to head at same time heat is applied to body so as to prevent cerebral anemia. Spinal sympathetic stimulation can be obtained by the application of an ice-bag or a hot water bottle. This stimulation results in functional activity of organs having nerve endings from sympathetic centers. Cold baths not well tolerated by many people. Warm baths not always sedative in their effect.

Dr. J. J. Kyle asked if cold baths before retiring were injurious.

Dr. Dodds: Good results follow hydro-therapy Cases must be selected or harm may result. Patients with deficient elimination and high arterial tension will be greatly benefited. Relaxation is an important consideration.

Dr. Kimberlin: Baths are not as popular in America as in Europe. Americans are too nervous to submit to the necessary restrictions. Exercise is an important adjuvant to baths. Patients with a low temperature, cold extremities, constipation and a bilious temperament are most benefited. Warm baths followed by cold and later by moderate exercise give the best results. Cases of splanchnoptosis which are accompanied by faulty excretion and elimination are well adapted to a course of baths.

Dr. Kahlo, in closing: Radio-activity probably explains the difference between natural and artificial water baths. Gouty conditions which represent absorption of proteid decomposition products can only be treated by eliminative methods. Popular opinion believes that the neurotic cannot bear cold baths. If baths are preceded by exercise and are of short duration they are of great value. Reaction is important thing in bath. Methods must be adapted to needs and desires of patient. In answer to Dr. Kyle, the objection to a cold bath before retiring depends upon the reaction. Exercise greatly promotes the amount of elimination by baths. Difficulty lies in getting patient to take agreeable exercise. Forced exercise not so beneficial.

Adjourned. Homer R. McKinstray, Secretary.

Meeting of February 20

Meeting called to order by president with 39 members present. Minutes of last meeting read and approved.

Dr. B. A. Brown read a paper on "Modern Methods in the Practice of Medicine." The partnership association with Dr. Hatfield and Dr. Odell was discussed and the advantages of partnership between physicians in a neighborhood were enumerated.

Dr. W. F. Molt read a paper on the subject, "Is There a Need of a Physicians' Credit Rating and Collecting Association?" The advantages of the application of business methods to the financial affairs of physicians were discussed. Public takes advantage of the physician and he should take his place with other business men in the management of his affairs.

Dr. H. O. Pantzer complimented Dr. Brown's paper. The practice of medicine could well be made a state function. Competition has great disadvantages. Dr. Molt's plan is feasible. It is possible for the plan to extend beyond a locality. The physician is required to wait for his pay. The profession should allow the public to know that bills for medical services must be paid the same as other bills.

Dr. A. L. Wilson: The ordinary physician is not a business man, and an Association to attend to his business affairs and collections is reasonable. Collecting agencies are not satisfactory.

Dr. A. W. Brayton: Dr. Brown's paper truly was Utopian. The ideal association of physicians was compared to the condition described in "News from Nowhere." Dr. Holt's plan will result in much good. The ordinary physician does not provide for his family. The physician should charge more and collect closely.

Dr. Brown, in closing, endorsed Dr. Molt's plan of a physicians' association and said that such an organization is the only solution of the business troubles of the physician. Numerous localities will submit to partnership arangements between physicians and the disagreeable results of active competition eliminated.

Dr. Molt, in closing, asked members to ask questions concerning details of the organization of the proposed association. Questions brought out the fact that probably instruments, automobiles, office furniture, etc., can be furnished at a discount.

On motion Drs. Brown and Molt were given a vote of appreciation for their ideas.

Adjourned. Homer R. McKinstray, Secretary.

Meeting of February 27

Meeting called to order by president with 37 members present. Minutes of last meeting read and approved. Application of Dr. Willis D. Gatch read for first time, and application of Dr. Henry R. Alburger was read the second time.

Dr. A. C. Kimberlin brought up for discussion the automobile license fee in Indianapolis. The fee has been raised to fifteen dollars for a five passenger car. Lights are required and the automobile driver is held responsible for accidents which occur at night in collision with other vehicles not carrying lights. The automobile promotes rapid traffic, does not injure the streets, and should not be discriminated against. The Hoosier Motor Club has been organized in an effort to get good roads and the rights that automobile drivers deserve. Members of the society interested in automobiles were advised to become members of the club.

Dr. Dodds: Indiana is far behind other states in the matter of roads. The city license is a hold-up.

The paper of the evening was read by Dr. R. S. Chappell on the subject, "Cases of Sudden Death Investigated by the Coroner in 1911." The causes of sudden death were reviewed. There is often lacking such findings as will determine the exact cause of death. Again, there will be found numerous pathological conditions any one of which might cause death. Fatty and fibroid conditions of the myocardium or unrecognized pneumonia were frequent causes. The kidneys often showed advanced changes incidental to the cause of death.

Opening discussion. Dr. E. S. Knox: Dr. Chappell discussed the pathological death. There is a natural death which does not occur as frequently as the pathological death. In the single cell there is no inherent death. In the higher forms composed of structures of a high degree of cell differentiation there is a tendency

to somatic death. The multiplicity of cells brings the tendency to death which does not exist in the single cell.

Dr. Robertson: Autopsies should be done not later than ten hours after death. Observations should be specific. Undertakers interfere with the work. Cleanliness should be absolute. Notes must be kept and sworn to as original. Specimens should be removed under cover so that no one may become unnecessarily troubled. Sudden deaths usually due to a disorder of either the nervous, circulatory or respiratory system.

Dr. Dugan: Coroners' cases are often very unusual and could be made of great value for teaching. The classification of causes is of interest. Some interesting cases were reported.

Dr. Brayton: The fact that Virchow's old method of doing an autopsy is still standard was mentioned. State hospitals do a high grade of work and keep a careful record of autopsies. Review of report of pathological department of Central Hospital for the Insane in Johns Hopkins *Bulletin* was read.

Dr. Kimberlin was impressed by Dr. Chappell's statement that many sudden deaths are due to unrecognized pneumonias. Myocardial disease was given proper importance as a cause of sudden death. Cases of fatty or fibroid myocardial disease are hard to recognize. Cases were reported. History, weight and habits are important in diagnosis.

Dr. Shimer reported a case of sarcoma having origin in the testicle. Autopsy showed general metastases, particularly in lungs, liver and kidneys. The brain, spleen and intestines were free.

Dr. Wynn: The medico-legal expert has great difficulties to overcome. The cardiovascular system ranks first in causing sudden death. A group of conditions often are confusing. Myocardial disease is very common. Anginoid symptoms are frequently present. A case was reported.

Dr. Chappell, in closing, thanked the discussants. The coroner favors a county morgue where autopsies can be done to good advantage.

Adjourned. Homer R. McKinstray, Secretary.

BOONE COUNTY

The regular meeting of the Boone County Medical Society was held February 6.

Dr. Carter H. Smith, who last year celebrated his fiftieth anniversary in the practice of medicine, read a paper on "Sentence of Death." The paper is as follows:

There is a painting extant—a great painting from which copies have been made in this wonderful age of pictures, that presents in art a drama of life or even a tragedy that might pass without notice if revealed by other forms of expression. One such may be seen illustrating the subject of this paper with startling effect, and if this alone were our object we might well leave the subject and rest here.

There is but one profession that can feel the full power of its pathos from a personal experience; that is the medical profession. Each physician can look over the unfading experiences of professional life and see them demonstrated in fact with inexpressible sadness and yet with inexorable fate. True the criminal judge may condemn to death or to a living grave the violators of the laws of God and man, but he has a crime and the criminal to support his unavoidable duty to society.

This is the picture of the sentence of death as every physician has pronounced it: There sits in his office a physician with serious face, beside him a young man in the morning of life with fear depicted on his bright face, and the light of blighted hope is fading away, while his mind is trying to fathom the mysteries of infinity. Words cannot express a feeling, that is sacred to oneself. Silence, not despair, is the only echo as we feel for the crumbling brink which we cannot see; that is all we can do. If it should be a near one—not ourselves—we might with Christian faith reach out over the abyss and with yearnings keep their love warm in our own hearts. But it is I. And the one that pronounces this terrible sentence is trying to dull its poignancy by words that mean nothing to the victim. It is DEATH, that is all and cannot be more. But the effect upon one patient is far different from what it may be on another one.

Here then comes the question that concerns the physician. Shall the verdict and sentence be given honestly and squarely or should there be left a gleam of hope like that of an appeal in a legal sentence? Hope, like mercy is always sweet. Business or religious faith might be a justification for prompt and unequivocal decision—professional discretion might not. Personal experience will illustrate this idea. A call to a stranger beyond the limit of my own practice brought me to a fine old country home to see an old man who was bravely struggling against a surely fatal disease, arteriosclerosis. With ample means and every care that intelligence could add, he was slowly reaching the end of life. I was requested to be fearless and unequivocal in my diagnosis and decision, for he said he was at peace and if need be he could give up his stewardship without a tremor of fear. With all the skill I could command and the deepest desire, I went over the case without finding the possibility of recovery. I went into an adjoining room and consulted with myself, coming to the same conclusion from every angle of the case, then tried to form some words that would be true and yet convey the condemnation to death in the least shocking manner. This was done. The effects were appalling and utterly unexpected. I felt bound to linger long enough to see the end of the spell, so wandered about the beautiful grounds for the greater part of an hour. When I returned he simply remarked, "I had expected you would have told me something better." But I could not. In a short hour more he called another physician. I was correct as time shortly proved. On the other hand we are censured for not revealing without reserve the inevitable when it seems best not to do so.

The question the physician is bound to answer is found in this statement of facts, and is worth our attention for this hour. The writer believes it will require not only the truth as we see it, but the utmost diplomacy as well.

In the discussion, Dr. P. B. Little said he believed the light of hope was legitimate and proper and should be given the patient even though the physician believed there was no reasonable hope of recovery.

Dr. W. H. Williams took the ground that the truth in the long run was the best, though tempered with diplomacy, care and expressive of consideration of all concerned.

Dr. Wishard, of Indianapolis, was present, and gave a very interesting talk, holding to the belief that even to the extent of merciful deceit the physician is justi-

fied in giving all the hope possible. In illustration of the subject he gave many perplexing and interesting experiences in his private practice, sustaining his position.

A general discussion followed.

Adjourned. J. H. Black, Secretary.

HOWARD COUNTY

The Howard County Medical Society met in regular session at the Carnegie Library Building, Kokomo, February 2, with a good majority of the members present.

The Committee on County Fee Bill reported with a complete revision of the present fee bill. The Committee on Banquet reported that arrangements were being made for the annual banquet to be held at an early date.

Dr. Geo. W. Marshall presented a paper on "Syphilis," dealing especially upon the diagnosis, pathology, laboratory findings, and symptoms, the subject of treatment to be taken up in a separate paper at the next meeting.

Discussion by Drs. Edgar Cox and H. C. Miller.

Adjourned. E. M. Shenk, Secretary.

HUNTINGTON COUNTY

The regular meeting of the Huntington County Medical Society was held February 7.

Dr. C. W. Fry read a paper on the subject, "The Duty of the Health Officers and Physicians to the Public Health. The writer said that the health officers should study and enforce the rules and instructions of the State Board of Health. The physicians should report promptly all births and cases of contagious diseases. He also stated that physicians should report each case of tuberculosis.

The discussion was opened by Dr. R. F. Frost, city health officer, who stated that it is not the province of the health officer to question a diagnosis except as to the contagiousness of the disease present. He also stated that the public wants the quarantine laws enforced. A general discussion of the paper followed.

Dr. W. C. Chaffee, one of the oldest members of the profession in the city and county, and the most regular attendant at the meetings of the society, gave an excellent talk upon "Therapeutics Past and Present." Dr. Chaffee stated that it is not often that one man has all the qualities that go to make both a good diagnostician and therapeutist. For this reason the speaker stated that it takes two men to make a good physician. Of the physicians of the earlier days, he mentioned Dr. Horne as a good therapeutist and Dr. Wm. Lomax as an excellent diagnostician. He stated that in recent years it is a sort of fad to lay much stress on pathology. Some men spend so much time determining the pathological conditions present that meanwhile the patient dies from lack of proper therapeutic measures. He advocated the use of few drugs, and those of proven value. He deprecated the use of "shotgun" prescriptions. The speaker stated that as a single drug, ipecac will meet more indications than any other single remedy. The size of the dose and the time between doses to produce the proper effect are the important items.

Dr. J. M. Hicks opened the discussion by stating that many physicians use the new drugs when we might obtain the same results with better known drugs. General discussion.

Adjourned. R. Q. Taviner, Secretary.

MARSHALL COUNTY

The Marshall County Medical Society met in regular session, January 25, in the office of Dr. Stephens.

Dr. Preston read a very interesting paper on "Surgical Technic," emphasizing especially the importance of surgical cleanness. General discussion.

The president appointed Drs. Stephens, Preston and Eley as program committee for the year 1912.

Adjourned. A. A. Thompson, Secretary.

LAKE COUNTY

The regular meeting of the Lake County Medical Society was held in Gary, Feb. 8, 1912, with 25 members present.

The program was given over to the discussion of business matters.

Dr. W. D. Weis, of Hammond, gave a talk on the use of printed forms as a combined case and account record; showing how infallible such a system could be made with a minimum amount of work.

Dr. E. L. Schaible, of Gary, read a paper on "Facts About Contract Practice," going into detail as to its various forms. He decried the growing tendency of physicians to "fall" for the increasing number of fraternal organizations which pledge unlimited medical service for a ridiculously small annual fee.

Both papers provoked much beneficial discussion, and the matters will be again taken up in March.

A resolution was introduced and passed endorsing the new quarantine regulations of the State Board of Health, and urging all our members to assist in their strict enforcement.

A committee consisting of all the local health commissioners and others was appointed to take up the practicability of establishing a County Bacteriological Laboratory.

Adjourned. E. M. Shanklin, Secretary.

PUTNAM COUNTY

The Putnam County Medical Society met in regular session February 13, in the office of Dr. J. F. Gillespie.

Dr. Theodore Potter gave a talk on "Fresh Air Treatment of Pneumonia in Private Practice;" Dr. W. D. Hoskins on "Care and Feeding of Infants," and Dr. N. S. Jobes, on "The Operative Treatment of Recent Fractures." A general discussion of the papers was participated in by each one present.

A pleasant social hour was spent before the visitors left for the train.

Adjourned. E. Hawkins, Secretary.

SPENCER COUNTY

The Spencer County Medical Society met in regular session February 20. Minutes of last meeting read and approved.

Several cases of interest were reported and discussed. Dr. G. B. DeTar, of Lake, opened the discussion on Pneumonia by saying that there was no new treatment, and that about 20 per cent. of all cases

were fatal. First thing in way of treatment is to evacuate bowels. Many cases can be aborted with aconite, belladona and sweet spirits of nitre. Use mustard plaster for first few days, then cotton jacket; strychnin as a routine treatment, and whiskey. Diet of milk, toast and eggs. Give laxative every 24 to 36 hours.

Adjourned. H. Q. White, Secretary.

ST. JOSEPH COUNTY

Meeting of February 6

The society met in regular session with 16 members present. Minutes of previous meeting read and approved.

Dr. W. A. Hager read a paper on "Relation of the Nasal and Accessory Cavities and Dental Lesions." Discussion general.

The chair rules that according to Article V, Section 3 of the Constitution, "a member stands suspended from January 1 to February 1 of any year for nonpayment of dues, and after February 1 he is *ipso facto* expelled and is no longer a member."

Lantern committee reports that a lantern is here from McIntosh Stereopticon Co. for trial, and that the Central Scientific Co. offers a lantern for $131.50 without a micro-objective. Motion carried that McIntosh people be asked to send demonstrator.

Social committee reports progress. Motion carried that date of meeting of social session be left to committee.

Library committee reports $520 subscribed and $450 collected, and $4.50 paid for journals returned. The Library has been moved into large room, and a collection of old surgical instruments used by Mr. Leo Eliel's father has been donated to Library.

Motion carried that committee of three be appointed to collect photographs of former members of this society.

Motion carried that secretary write and thank Drs. A. J. Ochsner and Percey for sending copy of their Surgery.

Adjourned. R. C. Shanklin, Secretary.

Meeting of February 13

Society met in regular session with 12 members present. Minutes of previous meeting read and approved.

Dr. C. C. Terry read a paper on "Cesarean Section," with report of two cases. Discussion general.

Application of Dr. Van Pelt referred to board of censors.

Motion carried that a program be compiled up to summer vacation, printed and sent to each member. Motion carried to amend motion to read that the program or bulletin be issued monthly.

Social committee reported that the banquet will be on Monday, April 1, and will be limited to members of the St. Joseph County Medical Society, their wives and friends.

Photograph committee reported progress.

Adjourned. R. C. Shanklin, Secretary.

Meeting of February 27

Society met in regular session with 13 members present. Minutes of previous meeting read and approved.

Dr. Bosenbury reported case of man aged 26. Patient been feeling well; suddenly Sunday afternoon complained of pain in abdomen and fell over; could not be aroused; temperature 104 degrees. Next day temperature 100 degrees, pulse 100, condition same. After several enemas, copious evacuations, followed by clearing up of all symptoms. Patient could not account for last 24 hours. Was it auto-intoxication, hysteria, epilepsy or a beginning anterior poliomyelitis? Discussion general. Opinion that it was case of auto-intoxication.

Dr. E. J. Lent gave a paper on "Some Observations on Accessory Nasal Sinuses," with lantern slide demonstration of specimens. Discussion general.

Dr. Hager reported case of girl, 10 years old, who had been sick for some time; mastoid region tender; edema and redness over temperal region. Mastoid operation. Dr. Bostwick, in discussing this case, reported two similar ones.

Dr. Terry reported case of child 22 months old; constipation, vomiting and temperature of 100 were symptoms. Next day vomiting continued; no result from enema; and tumor mass in abdomen size of walnut. Diagnosis ilens. Operation showed a tubercular peritonitis. This was two months ago, and in meantime patient had made good recovery. This morning was called again and little patient gave same symptoms; will report result.

Application of Dr. Van Pelt endorsed by committee. Election by ballot unanimous.

Library committee reported that $530 has been collected, and over six hundred volumes from the profession of St. Joseph County have been given; that the city school board has appropriated $500 with the promise of $200 annually, and has set aside a large, light room for the exclusive use of the Medical Library; one hundred and fifty-two volumes of the latest works and forty-seven of the leading magazines have been ordered forwarded at once; the librarian has arranged to have all the books and magazines cataloged and filed immediately; the rest of the money will be expended during the year as is needed. With this start and the books and magazines promised, the committee hopes to report at the end of the year that St. Joseph County has the second largest medical library in the state of Indiana.

Motion carried that program committee arrange to have a medical meeting in the Library.

Adjourned. R. C. Shanklin, Secretary.

TIPPECANOE COUNTY

Meeting of February 12

The regular meeting of the Tippecanoe County Medical Society was held February 12, with 17 members present. Minutes of previous meeting read and approved.

Dr. Driscoll reported interesting case in a child 18 months old in which his diagnosis was obscure. In this case there is a tubercular history on each side of the family. The child ran a high temperature from the beginning, reaching as high as 104½, and was very nervous. No convulsions, no paralysis, and pupils remained normal. A tentative diagnosis of meningitis had been made by Dr. Driscoll.

Dr. Beasley read the paper of the evening on the subject, "Some Things I Don't Know." The paper was very interesting and brought out an animated discussion. Discussion by Drs. Hupe, Smith, Driscoll, McBride, Moffitt, Terry, Kern and Thompson. Closed by Dr. Beasley.

A communication was read from Dr. Paul J. Barcus relative to the appointing of an essayist to read a

paper on Goiter at the May meeting. Secretary instructed to attend to matter.

Adjourned. E. Van Reed, Secretary.

Meeting of February 26

The regular meeting of the Tippecanoe County Medical Society was held February 26. Minutes of previous meeting read and approved.

Dr. Lairy reported a case of membrane in the throat of an adult and a peculiar exudate on tip of tongue and the lips. No other symptoms except a temperature of 99.2. Diagnosis reserved until culture is made.

Dr. Beasley reported a case of fracture of the radius in which the distal fragment was dislocated and twisted around anteriorly.: The condition unusual.

Dr. Kern reported case of baby four years old which had been sick two weeks. Pain in head; retracted head; mouth open; eyes staring; patient unconscious. Father tubercular. Diagnosis cerebrospinal meningitis. Patient died.

Dr. Keiper reported a mastoid case which was operated and apparently was recovering when patient was seized with a severe pain in the head. Leukocyte count 10,000. Patient went into collapse and became unconscious. Cranium opened and dura incised but nothing found. Patient remained unconscious and died in a few hours. Was an alcoholic which might account for sudden end.

Dr. Lairy reported a case of meningomyelitis in a young man. Patient had had an attack of what apparently was the la grippe; later became worse; legs became rigid; was unable to turn over, and had complete paralysis of lower extremities, both motor and sensory, also paralysis of bladder and bowels; pain in head; head retracted. Two ounces of cerebrospinal fluid was withdrawn and extracellular diplococci were found. Patient developed a pneumonia and died.

A paper was read by Dr. J. C. Webster, on the subject, "The Province of the Physician." Discussion by Drs. Beasley and Lairy. Dr. Crockett read a paper on the subject. "Inflammation of the Bladder." Discussion by Dr. Beasley.

On motion of Dr. Lairy, seconded by Dr. Kern, the president and secretary were instructed to communicate with the proper authorities relative to supplying the profession of this county with culture tubes.

On motion of Dr. Beasley, seconded by Dr. Lairy, the president and secretary were instructed to address a letter to each of the U. S. Senators from Indiana, expressing the sentiment of the Tippecanoe County Medical Society as being in favor of the Peace Pact between the United States, Great Britain and France, and urging their support of this measure.

Members present, Drs. Butler, Smith, Reser, Dayton, Webster, Hupe, Kern, Beasley, Crockett, Lairy, Keiper, Schaible, Lyle and Van Reed.

Adjourned. E. Van Reed, Secretary.

BOOK REVIEWS

Clinical Diagnosis. A Manual of Laboratory Methods. By James Campbell Todd, Ph.B., M.D., Professor of Pathology, University of Colorado. Second edition, revised and enlarged. 12mo of 469 pages with 164 text-illustrations and 13 colored plates. Philadelphia and London: W. B. Saunders Company. 1912. Cloth $2.25 net.

This volume contains in concise form the essentials of clinical pathology. The various forms of serum tests for syphilis have been added as well as special staining methods for demonstrating *Spirochæta pallida*, the antiformin method of examining sputum for tubercle bacilli, the tuberculin tests, the diagnosis of hydrophobia by means of smears from the brain and certain chemical tests for the urine. Especially good chapters will be found on the staining and examination of blood, the examination of feces for parasites and the preparation and use of vaccines.

The information contained in this book is clearly expressed; it is up-to-date and may be recommended as a trustworthy laboratory guide for students and general practitioners.

Merck's Manual of the Materia Medica. (Fourth Edition.) A ready reference pocket book for the physician and surgeon. Containing a comprehensive list of Chemicals and Drugs—not confined to "Merck's"—with their synonyms, solubilities, physiological effects, therapeutic uses, doses, incompatibles, antidotes, etc.; a table of Therapeutic Indications, with interspersed paragraphs on Bedside Diagnosis, and a collection of Prescription Formulas, beginning under the indication "Abortion" and ending with "Yellow Fever"; a Classification of Medicaments; and Miscellany, comprising Poisoning and Its Treatment; and an extensive Dose Table; a chapter on Urinalysis, and various tables, etc. (Merck & Co., 45 Park Place, New York, 1911. 493 pages. Sent on receipt of forwarding charges of 10 cents, in stamps, to physicians, or to students enrolled in any College of Medicine, in the United States.)

A Manual of Materia Medica. By E. Quin Thornton, M.D., Assistant Professor of Materia Medica in the Jefferson Medical College, Philadelphia. Octavo, 525 pages. Cloth, $3.50 net. Lea and Febiger, Philadelphia and New York, 1911.

In this book the author has attempted to lay the foundation for a course in therapeutics, and he purposely avoids an extended discussion of the physiological action and medicinal uses of drugs and chemicals.

Part I is devoted to posology, prescription writing, Latin essentials in prescription writing, incompatibility, and weights and measures. Part II is devoted to the discussion of drugs, chemicals and preparations official in the United States Pharmacopeia. Particular attention is given to the official Latin and English names, synonyms, sources, physical properties, common incompatibles, important constituents, methods of administration, doses, and to the ingredients of compound preparations. Descriptions of drugs and chemicals are given precisely and briefly, but elaborate discussion of actions, uses, poisonous effects, and antidotes is avoided. Part III gives a complete list of the United States Pharmacopeia preparations arranged according to pharmaceutical classes. The composition and methods of preparing them are stated. This part of the book is intended as a guide for students working in the laboratory and pharmacy. The appendix contains a complete alphabetical list of official substances, with the average dose for adults in accordance with the United States Pharmacopeia.

The author's long experience in teaching has given him definite views as to the field to be covered in a work of this kind, and also as to the best method of systematizing its presentation. The work has the distinction of being sufficiently comprehensive without being overburdened with a mass of material which would be unvaluable to the busy practitioner. It is a

trustworthy guide in furnishing all needful materia medica information, and it is recommended as a valuable reference work to the general practitioner as well as to the student.

A Handbook of Practical Treatment. In three volumes. By 82 eminent specialists. Edited by John H. Musser, M.D. Professor of Clinical Medicine, University of Pennsylvania; and A. O. J. Kelly, M.D., Late Assistant Professor of Medicine, University of Pennsylvania. Volume III: Octavo of 1095 pages, illustrated. Philadelphia and London, W. B. Saunders Company, 1912. Per volume: Cloth, $6.00 net: Half Morocco, $7.50 net.

This book completes the series of Practical Treatment edited by Drs. Musser and Kelly. The contributors to this third volume, as was the case with the preceding volumes, are among our foremost clinicians, teachers, and authors, and each has been given a subject upon which he is well qualified to speak. The contents of Volume III include seven general divisions: Constitutional Diseases, Diseases of the Respiratory System, Diseases of the Digestive System, Diseases of the Urinary System, Diseases of the Nervous System, Diseases of the Muscles, and Diseases of the Mind. The various subjects under these subdivisions have been assigned to 38 men, each abundantly qualified from experience and investigation to speak authoritatively, and the result has been to produce a volume which can hardly be surpassed for complete, comprehensive and up-to-date knowledge concerning the subjects considered. So eminently satisfactory are all the various chapters that it is not possible to pick out any one or more chapters which seem to be better than the others. They are all excellent, as might be expected from such a noteworthy list of authors. We take pleasure in giving the list of contributors, which in itself is sufficient to commend the work, and it is as follows: Isaac A. Abt, James M. Anders, John G. Clark, M. H. Cryer, F. X. Dercum, William A. Edwards, Charles H. Frazier, John H. Gibbon, Joel E. Goldthwait, Edward H. Goodman, Albion Walter Hewlett, John Homans, Guy L. Hunner, Chevalier Jackson, Henry Jackson, Theodore C. Janeway, John H. Jopson, Maynard Ladd, Egbert Le Fevre, James Henry Lloyd, G. Hudson-Makuen, Charles Horace Mayo, William James Mayo, Herbert C. Moffitt, B. G. A. Moynihan, John H. Musser, Roswell Park, George Morris Piersol, Charles W. Richardson, Samuel Robinson, Joseph Sailer, Bertram W. Sippy, William G. Spiller, J. Dutton Steele, Charles G. Stockton, James E. Talley, E. W. Taylor. This volume, like its predecessors, has a good index, and the numerous illustrations are excellent. The publishers' work has been well done, and the volume is fully up to the high standard set by the two preceding volumes of the series.

A Manual of Clinical Diagnosis by Means of Laboratory Methods. For Students, Hospital Physicians and Practitioners. By Charles E. Simon, M.D., Professor of Clinical Pathology and Experimental Medicine in the College of Physicians and Surgeons, Baltimore. Seventh edition, enlarged and thoroughly revised. Octavo, 780 pages, with 168 engravings and 25 plates. Cloth, $5.00 net. Lea & Febiger, Philadelphia and New York, 1911.

The new seventh edition of this standard work on clinical diagnosis presents some radical changes over the previous editions. As the author says, the time has come when laboratory diagnosis has assumed proportions sufficient to fill alone a volume of considerable size, and when Dr. Simon desired to summarize the laboratory findings of the various diseases he feared the necessity of making of his work a two-volume edition. By the elimination, however, of much that seemed rather elementary to the medical men of modern training, he has evolved a volume, somewhat larger than the former ones, but yet embracing the idea of two parts, part one containing the technical portion and part two the clinical data. By such an arrangement one can turn to any disease in the second part and view the complete laboratory picture, for the technic of which findings he may refer back to part one; certainly a most satisfactory attribute.

In the revision, the subject matter has, of course, been thoroughly reviewed and considerable new material added.

Although the technic of the Wassermann reaction is quite fully described, yet at the bottom of p. 142 and top of p. 143 one is surprised to find the statement that as yet it has not been determined whether the reaction, once made to disappear, will remain permanently absent. In the light of the last two years' experience with salvarsan, we know this statement to be erroneous.

Nor do we find sufficient emphasis laid upon the necessity of prolonged decolorization in the differentiation of the tubercle from the smegma bacillus.

All told, however, we feel that this edition fully sustains the reputation enjoyed by the former ones of Dr. Simon's upon this subject, viz., one of the very best in the English language.

A Pocket Atlas and Text Book of the Fundus Oculi. With note and drawing book. By G. Lindsay Johnson, M.A., M.D., F.R.C.S. London. Drawings from life by Arthur W. Head, F.Z.S. London. In leather, prepaid, $2.50 net. F. A. Hardy & Company. Chicago. 1912.

This is an exceedingly handy and thoroughly reliable atlas of the fundus oculi for the use of all ophthalmologic students, and others who are interested in ophthalmoscopy. The text has been ably written by an experienced teacher and clinician, and the beautiful colored plates of the normal and pathologic fundi have been made by Mr. Head who is considered the foremost artist in this particular work. The detachable drawing-book with colored pencils and instructions for recording uncommon fundus lesions adds greatly to the value of the work. The twenty-eight colored plates are alone worth the price of the book.

Essentials of Medicine. By Charles Phillips Emerson, M.D., Professor of Medicine in the Indiana University School of Medicine. Late Resident Physician, The Johns Hopkins Hospital; and Associate in Medicine, The Johns Hopkins University. Second Edition Revised. Illustrated by the author. Pages 401: Cloth, price $2.50. Philadelphia and London. J. B. Lippincott Company. 1912.

This book is one of the most entertaining and instructive that it has been our pleasure to review. It ought to prove interesting and valuable to every student of medicine, for the text covers a field that is seldom touched upon except superficially. The usual textbook on medicine deals in a more or less comprehensive

way with the diagnosis, symptomatology, and treatment of diseased conditions, but has little or nothing to say concerning the essentials, or the whys and wherefores. To properly treat a disease it is necessary to thoroughly understand that disease, and it is not possible to gain a comprehensive knowledge of any disease and not be able to recognize and analyze all of the symptoms and manifestations. In a most entertaining way the author deals with the foundation of the general diseased processes and the reasons for the various manifestations that are presented. The knowledge that is thus elucidated is used as a rational basis for treatment, and while the author does not attempt to give full information concerning treatment, yet the suggestions are helpful in the adoption of a rational therapy.

We have always doubted the propriety of placing medical books in the hands of lay readers, and yet, as the author well says, the book may be attractive to the general reader in that it will aid him to understand more clearly the medical problems of the day, to appreciate more highly a well trained practitioner, and to cooperate better with his doctor.

Some of the information that is included in the book may seem elementary in character and yet it is a well known fact that it is the overlooking of elementary facts which spells failure for so many practitioners, and the author's long experience as a teacher has led him to understand that students are inclined to ignore the elementary facts, and that if students will do so, practitioners are likely to do so. Accordingly he places emphasis upon some of the most neglected features of medical practice, and gives us a splendidly written volume which should find a place in the library of every practicing physician.

Electricity, Its Medical and Surgical Applications, Including Radiotherapy and Phototherapy. By Charles S. Potts, M.D., Professor of Neurology in the Medico-Chirurgical College of Philadelphia, with a Section on Electrophysics by H. C. Richards, Ph.D., and a Section on X-Rays by H. K. Pancoast, M.D., of the University of Pennsylvania. Octavo, 509 pages, with 356 illustrations and 6 plates. Cloth, $4.75 net. Lea & Febiger, Philadelphia and New York, 1911.

There is no question but that a book of the sort evolved by Dr. Potts has a distinct place in medical literature. Physicians are prone to prescribe physical, non-medicinal measures without an accurate conception of the details of the treatment they are prescribing. It is for this reason that charlatanism gains a foothold which rightly belongs to the careful physician. This holds true not only with electricity, the subject of Dr. Potts' book, but with massage, gymnastics, etc. Every medical man well knows how difficult it is to obtain the services of a skilled and well trained masseur, whereas were he himself properly versed in the fundamentals of this branch of treatment he would be able to more readily impart training to nurses or other attendants. So it is with the various forms of electricity therapeutically applied. We owe it to ourselves and to our patients to be better grounded in its fundamental principles. The question of diagnosis in medicine, and particularly nervous diseases, is often greatly aided and abetted by the proper use of some form of electricity. So that, embracing as it does both the diagnostic and therapeutic side of electricity, Dr. Potts' book should find a welcome place on the shelves of the general practitioner.

Dr. Pancoast's concluding section on the x-ray is most excellent and particularly that portion which treats of the care and manipulation of the tube. Probably a greater amount of results is lost, both in the diagnostic and therapeutic use of the x-rays through lack of knowledge concerning the vacuum, penetration, etc., of the tube than from any other source. One's only regret is that Dr. Pancoast's section is as abbreviated as the limits of this volume demand.

Manual of Practical Hygiene. For Students, Physicians and Health Officers, by Charles Harrington, M.D., late Professor of Hygiene in the Medical School of Harvard University. Fourth edition, revised and enlarged by Mark W. Richardson, M.D., Secretary to State Board of Health of Massachusetts. Octavo, 850 pages, with 124 engravings and 12 full-page plates, in colors and monochrome. Cloth, $4.50 net. Lea & Febiger, Philadelphia and New York, 1911.

The medical profession of our country is to be congratulated that the untimely death of Dr. Harrington has not resulted in the withdrawal of his excellent work on hygiene from the list of standard texts of this subject. And the publishers are likewise to be congratulated in having secured the services of one so competent as Dr. Richardson to take up the work of revision where Dr. Harrington left off.

With the rapid strides being made in medicine, and particularly preventive medicine, that characterize the present day progress, frequent revisions and numerous additions become essential to even the best text-books, and of this Dr. Harrington was well aware.

While the work is fully comprehensive and interesting, there are still some features omitted that one would like to have discussed in this standard text. In the consideration of food preservation nothing is offered concerning benzoate of soda in which we are all so much interested at the present time. The same is true of the question of the spread of contagion by fomites, etc., and its bearing on prophylactic measures and precautions, subjects that are under the fire of investigation and discussion at the present time.

However, so much ground is covered, and that so thoroughly, that one cannot well afford to be without this standard work on hygiene.

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ORIGINAL ARTICLES

SYMPTOMS AND DIAGNOSIS OF PTOSIS OF ORGANS OF THE UPPER ABDOMINAL ZONE *

CHARLES R. SOWDER, M.D.
INDIANAPOLIS

The work of Glenard first drew the attention of the profession to prolapse of the kidneys, stomach and other organs of the abdominal cavity. Various terms are used to designate this condition, viz., gastroptosis, enteroptosis, gastroptasia, visceroptosis, splanchnoptosis, abdominal relaxation or atonica gastrica, atony of the third degree.

Glenard's disease may be defined as a prolapse or downward displacement of the stomach, right kidney, or of both kidneys and other organs of the abdominal cavity, and which may be associated with disturbances of the gastro-intestinal tract and pelvic organs, together with various nervous symptoms.

As to its frequency, Meynert found in fifty girls aged 12, 50 per cent. with gastroptosis and about 80 per cent. of females in his gynecologic clinic to 5 per cent. males among the adults.

The study of various statistics shows that about 20 to 25 per cent. of women complaining of digestive disturbances are affected with movable kidney and enteroptosis. The average among all women in city population is about 15 per cent. The ratio of males complaining of digestive disturbances with enteroptosis is about 2 or 3 per cent. The ratio in adults is eight or ten females to one male. The most frequent age is from 18 to 40, then between 50 and 60 when the condition appears most marked.

The etiology of Glenard's disease is still a mooted question, various causes being assigned by different writers. Within the past two or three years Reynolds and Loovet of Boston have been devoting considerable time to a study of the problem, with some promise of a rational solution, a preliminary report of which may be found in *The Journal A. M. A.*, Dec. 10, 1910.

The treatment is likewise an unsettled question claiming both surgical and medical advocates. Both etiology and treatment, because of this, are left out of the present paper and reserved for general discussion. For convenience and to avoid confusion the various organs involved are considered separately.

Gastroptosis is characterized by a change in position of the upper curvature of the stomach. The presence of movable right kidney serves as a further aid to diagnosis and is a stigma of gastroptosis. Ninety-five per cent. of cases may present no symptoms whatever.

Changes in the secretory functions of the stomach are frequent, some patients presenting the symptom-complex of hyperchlorhydria. In other cases marked disturbance of the motor function may occur. Changes in the position of the duodenum may result in stasis with resulting symptoms of disease of the gall-bladder simulating gall-stones, and not infrequently accompanied by jaundice. Disturbance of the intestinal tract, constipation, occasionally diarrhea, mucous colic and chronic appendicitis are frequent sequelæ. Relaxation of the broad ligaments with uterine and ovarian descent and dysmenorrhea, in fact, descent of the pelvic floor, is not unusual.

* Read before the Indiana State Medical Association, at Indianapolis, Sept. 29, 1911.

Circulatory disturbances and marked neurasthenia are associated conditions most generally ascribed to the resultant auto-intoxication. There are usually anemia due to the disturbed nutrition, a feeling of weakness or faintness, fatigue on slight exertion, backache and anorexia, belching and discomfort immediately after meals, at times intestinal catarrh. Headaches are frequent, the patient becoming nervous and hysteric. At times patients will complain of a feeling of weight and bearing-down pain in the abdomen which is relieved by proper support. In occasional cases pain and discomfort are focused in the kidneys, especially the right. Attacks of Dietl's crisis are not infrequent and in some, pain in the region of the gall-bladder and liver. Irritability of the bladder with frequent urination. Pains in the ovaries, together with various sensitive points in other regions of the abdomen. Palpitation, tachycardia, vertigo, dyspnea, cramp-like pain in the epigastrium, extreme nervousness and insomnia are often present in aggravated cases. The diagnosis of this condition is generally easy. These patients are usually thin and slender with flaccid abdominal walls and a concavity between the costal arches in the epigastrium from the ensiform cartilage to the umbilicus.

In the dorsal position the abdomen may bulge laterally and be flattened below. In the erect posture the abdomen may bulge considerably, the so-called pot belly. Stiller's floating tenth rib is present in some cases and separation of the recti muscles may be marked. Movable kidney may frequently be determined and, taken with the splashing sound found below the normal position of the lower border of the stomach, is pathognomonic of gastroptosis. By inflating the stomach with air or carbon dioxid the upper border can be determined on inspection and the diagnosis decided in doubtful cases. Gastrodiaphany also gives accurate results. Gastroptosis may be differentiated from gastrectasis by the means suggested above.

NEPHROPTOSIS

Abnormal movable kidney is of very frequent occurrence and even in extreme degree of mobility may be without symptoms, the kidney remaining perfectly healthy. On the other hand, a moderate degree of mobility may be accompanied with severe and distressing symptoms. Mobility of the kidney favors the formation of renal calculi and abscesses and may produce nephritis. They are frequently the seat of tuberculosis. Congestion and hematuria are often present.

A displaced right kidney may pull down the duodenum, favoring gastric dilatation, and this in turn may produce traction on the bile ducts and disturbance of the biliary function. By exerting pressure on the ileocolic branch of the superior mesenteric vein, congestion of the appendix may occur with symptoms of chronic appendicitis or even acute appendicitis. The latter condition was observed in a patient by the writer not long ago, in which there were fever, nausea and vomiting, abdominal distention and pain over the region of the appendix, which symptoms were entirely relieved by replacement of the kidney.

The symptoms from nephroptosis are reflex and local. The reflex symptoms are nervousness, intestinal indigestion, distention of the bowels, palpitation of the heart and cardalgia. Neuralgic areas of pain referred most often to the region of the abdomen and the heart are quite frequent. The local symptoms are a sensation of weight and dragging, inability to sleep on the side opposite the affected kidney, attacks of severe pain, the result of torsion of the pedicle which obstructs the blood-vessels or ureter or both, such attacks being known as renal or Dietl's crisis. These attacks are characterized by sudden sharp, agonizing pain, great tenderness in the lumbar and hypochondriac regions, nausea and vomiting and occasionally by chills, fever and collapse. The urine is diminished during the attacks and may contain albumin and casts. After the attacks the urine may be normal or increased in amount with uric acid and oxalates in excess. Intestinal obstruction, jaundice and dilatation of the stomach may also occur. Pain may be referred to the lumbar and sacral region, aggravated by riding or walking and relieved when quiet. Mucous colic may occur; in men hypochondriasis is frequent.

COLOPTOSIS

Descent of the transverse colon is most frequent as can be demonstrated by inflation with air or water, or with bismuth and x-ray plates. Not infrequently the course of the ptosed transverse colon may be detected by palpation, especially in patients with very thin abdominal walls. This I have been able to do in two cases seen recently. In one of these cases a man aged 62 had attacks of severe colicky pain with diarrhea and mucous stools. In many cases symptoms especially referable to the colon are absent but may be merged with those of splanchnoptosis.

LIVER

True hepatoptosis is rare. It is associated with atrophy and relaxation of the abdominal walls and separation of the abdominal muscles. But

congenital relaxation and elongation of the liver ligaments are probably the etiologic factors.

Symptoms.—Pain is a common symptom and is referred to the right hypochondrium and epigastrium and extends to the right shoulder and lumbar region. Spontaneous paroxysmal pain, bearing-down sensations, attacks of colic with belching, meteorism and constipation are frequent. Traction or torsion of the portal afferents may cause passive venous congestion of the splanchnic veins drained by them and a consequent asphyxia of the bowels. Hemorrhage from the bowels, ascites, hemorrhoids and edema of the lower extremities may attend this condition. Jaundice is rare but in one of my cases I noted a subicteroid hue.

Physical Signs.—I have seen the lower margin of the liver swung into the pelvis when its support was removed. The convex surface is directed forward and the right lobe seemed to have rotated slightly to the right.

On percussion the pulmonary resonance passes directly into tympany due to the intestines which have found their way into the space between the liver and the diaphragm.

The differential diagnosis involves the consideration of a greatly thickened mesentery and a tumor of the kidney. Neither of these tumor masses is associated with tympanitic resonance in the normal area of liver dulness, nor can either of them be made by manual pressure to pass into the normal liver position. In one case, an aged maiden lady, a liver prolapsed into the right inguinal region was entirely without symptoms.

MOVABLE SPLEEN OR SPLENOPTOSIS

It most commonly accompanies enteroptosis. In the area of normal splenic dulness between the ninth and the eleventh ribs there is found a tympanitic sound.

Symptoms.—The dislocation is usually downward and forward, and the organ may reach a position below the level of the umbilicus or even pass into the pelvis, or it may form a part of the contents of a large inguinal hernia sac. It is as a rule more or less enlarged. Subjective symptoms may be wholly absent, and the condition may be accidentally discovered. More commonly there are sensations of weight and dragging with diffuse dull pain in the left flank. Colic, constipation, dysuria and neuralgia may result from the derangement of the various structures on which the displaced or enlarged spleen exerts traction or pressure. The consequent obstruction to the circulation sometimes causes great distention of the splenic veins. Torsion of the pedicle may lead to strangulation with great pain, tenderness and local swelling followed by necrosis.

Differential Diagnosis.—One important point in differential diagnosis between enlarged and misplaced spleen lies in the palpation of the upper end of the organ below the edge of the ribs. Care should be exercised in defining the indented median line — the rounded outer border and the sharp lower margin — and in splenoptosis the respiratory excursions do not affect the dislocated spleen as it would an enlarged organ. It may be diagnosed from a movable splenic dulness — the arc of attachment of the kidney and by x-ray of the ureter.

GALL-BLADDER

This by anatomic relation naturally belongs to discussion relative to the liver, but a case recently met with forms the excuse for its special mention, both as to the unusual position and the difficulty of diagnosis.

REPORT OF CASE

Mrs. K., aged 26, married; family history negative, except that mother had right kidney removed several years ago (cause not known). Past history negative. Present illness began three years ago with occasional attacks of indigestion, with pain over the region of the liver and stomach. Nausea and vomiting. Attacks usually lasted one to ten days. Gradually grew worse and in December, 1910, submitted to appendectomy without relief from symptoms. Appendix was found to be normal. In March, 1911, she was taken with sudden severe pain in the region of the stomach, accompanied by chills, nausea, vomiting and collapse; during this attack was confined to bed for one week when the patient was seen by the writer. She had lost 20 pounds in weight and complained of severe gastric disturbance. Physical examination disclosed a tumor mass in the region of the right kidney — extremely tender to touch and no connection with the liver could be made out. Examination of the urine showed presence of pus. The leukocyte count was 17,000.

The patient was sent to the hospital with a tentative diagnosis of pyonephrosis with the possibility of the mass involving the gall-bladder, the latter being based on the location of the pain and history of attacks of indigestion.

Case was operated May 2, 1911, at the Methodist Hospital.

Operation.—Tumor mass exposed through Israel's incision. The mass consisted of an enlarged gall-bladder (containing 6 ounces of dirty brownish fluid, and three large gall-stones). The gall-bladder was adherent to the kidney and closely bound to it. Lying above the gall-bladder

was the hepatic flexure of the colon. The patient made an uneventful recovery and has suffered no symptoms since.

It was not my intention, as stated in the beginning, to discuss the treatment of these conditions, but in closing I may be pardoned by briefly alluding to it. The great majority of individuals having symptoms which may be referred to prolapsed organs are neurasthenic to an extreme degree and great caution should be exercised in informing patients as to what we believe to be the causal factor. Unless we can definitely and surely ascribe the symptoms of which the patient complains to ptosis of a particular organ, we are not justified in informing him that he has such a condition. The mere discovery of a displaced kidney by physical examination does not warrant us in the conclusion, without exhaustive effort at least, that all the ills of which he or she may complain are due to this particular displacement; and if before passing mature judgment we so advise the individual a psychic state may be brought about which will be most difficult to relieve. To accomplish results in cases in which the symptoms are traceable to ptosis a careful study of the individual case is necessary with proper remedial measures applied.

Most of these patients do well if placed in bed for three to five weeks with forced feeding. Endeavor to increase the weight and with it the intra-abdominal fat. Ten to twenty pounds' increase in weight is not infrequently accompanied by a disappearance of the symptoms. Many cases receive a large measure of relief by the application of properly fitted bandages or of specially made pads.

As to the surgical treatment of this condition, it is far from satisfactory. I believe that entirely too many kidneys are anchored. In many, many cases there exists a general splanchnoptosis and surgical interference, with the hope of relief held out to the patient, will result in lasting harm.

DISCUSSION

Dr. A. B. Graham, Indianapolis: It is not my intention to burden you with a repetition of the multitude of symptoms which Dr. Sowder has told you Glenard's disease is capable of producing.

Several years ago in this room Dr. Cole and I presented a paper accompanied by slides showing the use of the *x*-ray in diagnosis of gastroptosis and enteroptosis. The more of these cases I see the more I am convinced that the only absolutely accurate method of diagnosis that we have is making a skiagram. It is all very well for you to read regarding the ability of certain gentlemen to percuss the stomach, but when you have a skiagram you can see the stomach.

Only recently there appeared in the *Annals of Surgery* a most interesting article by McLaren of Minnesota, who has treated a large number of cases for relief of this condition, and in which he states that he has made exhaustive research and study in surgery for the relief of this condition, and he now believes that the pylorus is a pelvic organ. I do not believe that the anatomists give you an idea of the position of the normal stomach. They give you an idea of the stomach in a recumbent position, or when we are standing. McLaren considers that in a majority of cases the pylorus is a pelvic organ. If you will take time to make a skiagram you will find he is correct in a majority of cases.

The important point in the consideration of Glenard's disease is diagnosis. It is a disease that is present in many people. On the other hand, it is a disease that is frequently overlooked. Do not think for a moment that people suffering from Glenard's disease present symptoms. Many of them carry a stomach in their pelvis without any symptoms, and look at you in horror when you say there is such a position of the organs. I wish we had an agent like salvarsan for these serious cases of Glenard's disease, which you all know do not readily yield to treatment of any kind.

As to the various methods if it is not possible to make a skiagram, I am not opposed to the inflation of the stomach by the use of tartaric acid and bicarbonate of soda, but you should note the position of the stomach, you should make a careful examination of the patient and obtain a careful clinical history, and be absolutely certain that there does not exist a gastric ulcer or a deep duodenal ulcer. As I say, I am not opposed to the method, but be absolutely sure that you do not have the conditions I mention present, because you will be apt to have an accident which will not be to your liking.

When we come to consider Glenard's disease it means dislocation of the abdominal organs. When we consider gastroptosis and enteroptosis we must consider two forms — what we call a congenital form, the patient who has a congenital predisposition, who has an acute epigastric angle. These cases are the cases that do not yield readily to treatment. It is true we can give treatment that will prove palliative, but as yet we have reached a point where we cannot readily and absolutely cure. On the other hand we have a mechanical gastroptosis, a mechanical enteroptosis, due to trauma, to tight lacing, to frequent pregnancy, and these are the cases that with properly applied bandages and proper treatment will give you ideal results. If the stomach is down we do not lift it back into its normal position. We improve the tone of the abdominal muscles, we improve the motor activity, and the patient complains of no symptoms so far as the stomach is concerned.

When we consider the various mechanical apparatuses that have been devised, and the misfortunes we have had in using some of them, it is discouraging. But if you use the proper kind of bandage which will give proper support in the right part of the abdomen, in mechanical cases, you will get ideal results. The congenital cases are harder to cure. McLaren advises postural treatment. He has operated on these cases with results which have not been encouraging. He advises forced feeding and postural treatment. He claims that the pylorus is a pelvic organ and that the stomach is unable to propel its food uphill into the duodenum. He overcomes this condition and forces feeding for the improvement of tone of the abdominal muscles, and says he feels this is the ideal way to secure the best results.

Dr. Harry Sharp, West Baden: It seems to me that after all, the society is taking rather too pessimistic a view as to the cure of these most unfortunate sufferers. From the lower pole of the kidney extends a band of fibers which attach themselves to the retroperitoneal portion of the colon, and in cases where the kidney has been pulled out of place by the motion of the colon, or the kidney is weakened by curvature of the spine, as a result of the drawing down of the colon and pulling down of the kidney, the gastrocolonic ligament stretches and pulls the stomach down. Now by an operation, not to strip the kidney of its capsule and anchor it to the muscular wall, but by making an incision below the pole of the kidney and reaching in and pulling up this fibrous band, lifting the colon up, but not touching the kidney, you relieve the tension on the gastrocolonic ligament and leave the colon in the correct condition and also the kidney. In that way you relieve the prolapsed condition of the colon and the prolapsed condition of the kidney, and take the tension off the stomach. The question of medical treatment is very important, but in my opinion surgical treatment affords more brilliant results.

Now as to the question of putting fat on the patient, the patient must take postural treatment. Why? Because in that position the weight is relieved from the colon and the stomach and organs drop back in their normal position and the patient takes on weight. The kidney does not become fastened back in its normal position, but the patient gets up and about and can go on with regular work. But of course prolapse occurs sooner or later.

Dr. A. E. Sterne, Indianapolis: We neurologists see a great many of these cases, because they come into our hands from a neurologic standpoint, with very frequently no diagnosis having been made. Glenard's disease, if you want to call it a disease — it is a condition rather than a disease — is one which is very frequent. It has a pathology, not necessarily a pathology of the organs *per se;* it is a phase of misplacement, and here is the chief feature of the consideration of these cases. I consider it rather as an organ purely misplaced, and which in itself is not diseased, from the fact that there are very few symptoms until it begins to interfere with the functions either of its own or neighboring organs. I do not believe that an organ unaffected in itself, no matter what its position, creates many symptoms unless it interferes with the function of some organ, and I do not believe unless we correct the mechanical element involving this lack of function that we will achieve the results we desire, whether we proceed on medical or surgical lines.

A course of forced feeding and rest for the patient to my mind is the essential thing, and it is very essential that this course be pursued after an operation. I agree with Dr. Sharp that in some cases replacement of the kidney does splendidly, but I also would say that a stomach or colon which is misplaced and therefore is not draining properly is a very serious matter. Furthermore, the mere drainage of an organ is not the thing we most desire, but besides postural position we must have forced feeding. The trouble with the human being is that we walk on two feet when we have no business to walk that way. If we walked on four feet our organs would drain properly. The stomach drains uphill, the appendix drains uphill. I think God made a mistake when he let us walk on two feet. But that is a thing we cannot achieve, so we must bring these patients into condition where they can walk on two feet, and with sufficient reserve force to carry them in their daily occupations.

The anchoring of the kidneys helps, but if we leave these cases simply to the result of surgery without anything else, we do not achieve the result we anticipate — that of restoring to the patient practically normal functions.

PULMONARY THROMBOSIS FOLLOWING SURGICAL OPERATIONS *

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Occasionally one who does much surgical work will meet with a fatality where he least expects it.

A case is operated which has no pus about it and there is no reason to expect postoperative infection; the course of the convalescence is satisfactory; the patient, family and operator are well pleased and content, when out of the clear sky comes a thunderbolt in the shape of a message that the patient is dead. Or one may be

* Read before the Indiana State Medical Association, at Indianapolis, Sept. 29, 1911.

congratulating himself on saving the life of one desperately ill only to have that life snuffed out suddenly ten days later by something unexpected which gave no warning of its approach.

If dyspnea, cyanosis and sweating characterize the death scene one is justified in the presumption that pulmonary thrombosis has caused the trouble unless post-mortem examination is permitted, when the presumption may be proved.

A review of the literature for the last few years will bring out what seems to be known concerning the etiology and pathology of the condition. It may not be complete but is all that I could find in my own library.

Zurheile (*Med. Klin.*, Nov. 7, 1909), discusses the connection between postoperative thrombosis, infection and depositing of fibrin, his conclusion from much research being that a retarding of the blood stream is the main factor in the production of a thrombus and that the blood-plates pile up mechanically in the more sluggish blood stream. This conglutination of blood-plates is entirely different from coagulation of fibrin and the latter is not necessary for the formation of a thrombus; when it occurs it is secondary. His experiments show the uselessness of striving to prevent thrombosis by reducing the coagulating property of the blood, as we are unable to act on the blood-plates; all we can do is to prevent the blood stream from becoming sluggish.

Aschoff, same issue as above, suggests that it may be possible to prevent thrombosis by changing the physical conditions in the circulation, combating any tendency to slower pulse-rate. He does not think that thrombosis is always of infectious origin, but a superposed infection transforms a primary insignificant thrombus into a dangerous thrombophlebitis.

The main object of Bland Sutton's Hunterian lecture (*Lancet*, Jan. 16, 1909), is to consider the mode of origin of those blood-clots which are big enough, when detached from the veins in which they are formed, to occlude the pulmonary artery with fatal effects. It is necessary to appreciate the fact that thrombosis is in reality a defensive action of the blood. In collecting material Bland Sutton's chief object was to find out the causes of thrombosis besides sepsis, but a study of the conditions underlying the formation of thrombi in the great veins after pelvic operations convinces him that sepsis is responsible for all. He insists on quiet in bed for two weeks or until the temperature has been normal for three days. Pulmonary embolism occurs much more frequently after abdominal hysterectomy for fibroids and is especially liable to happen in women who are anemic from menorrhagia.

E. H. Beckman (*Jour. Am. Med. Assn.*), reports six cases of pulmonary embolism occurring at Rochester in the first eight months of 1910 out of 4,530 consecutive cases operated on. One occurred on the first day, one fifty-six hours after operation, two on the eighth day and two on the ninth. In only one case was there evidence of infection either at operation or at autopsy. Ages of fatal cases, 35, 43, 45, 57, 60.

Kelly and Cullen, Myomata of the Uterus, report four deaths from pulmonary embolism following hysterectomy out of 901 operations.

Haward's figures from the London hospitals (Osler's Modern Medicine), show that venous thrombosis occurred thirty-four times in 3,774 patients with appendicitis, and that a little less than one-eighth of these were cases of pulmonary embolism.

George Blumer in his study of this subject says (Modern Medicine): "In some of the instances occurring after septic conditions, like appendicitis or pelvic inflammatory disease, there is good ground for believing that the operation may have had little to do with the complication, for thrombosis sometimes occurs in these conditions without operation. In the non-septic cases, conditions are different. In these patients, according to Clark, the complication seldom appears until after the eighth day, and usually not until after the fifteenth. He believes that the thrombosis in this class of cases is not due to sepsis, but to a propagating thrombus of the deep epigastric veins originally produced by the traumatism resulting from operative manipulations, and especially the use of heavy retractors. The evidence furnished by Clark's study is quite convincing. The late onset of the attack, the uniform absence of fatality, and the slight general symptoms, all speak against a septic origin in these cases. In the instances following operations for septic conditions, however, the etiology is probably not that of extension from a thrombus in the epigastric veins; at any rate, not in all cases. In all postoperative thromboses the possibility that the anesthetic may act as a predisposing factor must be considered.

Berkeley and Bonney (Text-Book of Gynecological Surgery), describe the clinical picture of pulmonary thrombosis very vividly and state that it frequently follows infection of a pelvic vein, the immediate cause being some movement, as rising from a chair or bed.

George Tully Vaughn (*Am. Jour. Med. Sc.*, July, 1911), reports the case of a perforating ulcer of the duodenum which was operated and made a satisfactory recovery until the tenth day when, while using the bedpan after an enema, he suddenly complained of difficulty in breathing, pulse became very rapid, his face and chest became cyanotic and he died about fifteen minutes from the beginning of the attack.

Albanus found that pulmonary embolism followed in 2 per cent. of abdominal operations.

Burkhard gives in 236 operations for uterine fibroids twelve cases of embolism (Keen's Surgery).

He has seen many cases of embolism or thrombosis of the iliac or femoral veins but only three cases of pulmonary embolism, two of which were fatal. The first was in a boy of 14 in whom the symptoms came on five days after the receipt of a wound to the knee. Death occurred in half an hour. The other was a woman of 38 who had an operation for double hernia and on the ninth day was taken with a pain under the left breast, a feeling of oppression and difficulty in breathing, the pulse rose to 120 and she vomited once. The symptoms continued for twenty-four hours and then subsided.

The efficiency of treatment by frequent change of position and short stay in bed in preventing thrombosis is open to question.

Sievers and Trendelenburg have each operated a case but both died, Trendelenburg's after thirty-seven hours.

The notes of the following case were furnished me by Dr. M. F. Porter, whose patient she was, and to whom I am indebted for the privilege of reporting it.

Mrs. G. B., housewife, 44 years of age, was admitted to Hope Hospital Sept. 21, 1909, with a diagnosis of cholecystitis with cholelithiasis.

Her mother died of pulmonary tuberculosis, and her father of cancer. One aunt has had cancer for many years.

She had most of the children's diseases. Menses came on at 13 years, regular and painless. Never seriously ill. Married at 17 and has four children, all well. All normal deliveries, the last being seventeen years ago. Lacerated in first labor and had "female trouble" for some time. Has been well since last child was born.

Four years ago began having attacks of pain in the gall-bladder region, with vomiting and constipation. Pain was generally relieved by vomiting. Has been having attacks at intervals ever since. Present attack began eight days ago with nausea and slight pain in the side, which became very severe. Vomited eight or ten times the first day and felt better after next day. Was in bed two days. No jaundice at any time. Has had pain all over body since beginning of attack. Lost 5 pounds in weight in last week. Bowels constipated.

Examination shows large, fleshy female. Eyes, face, neck and chest negative. Belly shows tenderness and rigidity with tumefaction in the gall-bladder region. The urine was neutral in reaction, 1.024, and contained no albumin or sugar. The pulse was 80; temp., 98 F.

Operation Sept. 23, 1909. Incision over gall-bladder, which was found distended with mucus and many small stones. Operator, Dr. John Young Brown of St. Louis, then a guest at the meeting of the American Association of Obstetricians and Gynecologists. The operation was cholecystostomy. Rubber tube left in gall-bladder. The convalescence was uneventful, her highest temperature being 99.4 and her pulse 80 on the 25th. On the morning of the 27th, she had a convulsion, preceded by extreme anxiety, air hunger and cyanosis, with a sense of impending death. The respiration became shallow and the cyanosis increased. She rallied from this and then went into another and expired, the respiration stopping before the heart, the total time consumed being less than an hour.

Two of these cases have occurred in by own practice.

The first was in the person of a young woman, Mrs. L., 24 years of age, two months advanced in her second pregnancy. She suffered a severe post-partum hemorrhage when her first baby was born four years previously, but made a complete though tardy recovery from it. She has had pain almost ever since the first confinement in the right iliac region. At times it would be very severe.

On June 8, 1909, she developed a pain in the right side of the abdomen which required morphia. She vomited frequently on the 9th and 10th, and the tenderness continued. I saw her first on the latter date, at which time a diagnosis of appendicitis was made and operation advised. This she refused and I heard no more from her until the 12th, when I learned she was in the hospital waiting for me to operate her. She made the statement that she would not survive the operation and persisted in her assertions with such pertinacity that I tried to overlook nothing in her examination which might substantiate her statement.

Examination of the chest was negative as was also the urine. The laparotomy went on as usual. There were no adhesions. The peritoneal coat of the appendix was injected and we liberated several drops of very foul pus when the lumen was opened. The mucosa showed petechial hemorrhages.

There was found a band between the right tube and the omentum 4 inches long. This was

ligated at both ends and removed. The uterus was enlarged and soft and about the size of a two-months' pregnancy.

She was put to bed in good condition and was making a very satisfactory convalescence when I received a message at 2:20 a. m. on the morning of the 16th that she was dead. I hurried to her bedside, and, assuming that I had a right to see whether anything had gone wrong with my operation, the Sister and myself opened the belly through the original incision. There was no pus anywhere. The peritoneum looked healthy. It was not red. The uterus did not seem altered. I was at a loss to account for the death.

The Sister, a very intelligent nurse, said that a little after 2 a. m. she had asked for a bedpan which was given her and that she had then urinated. After this she asked for a drink which was also given her and a pillow placed under her knees to change her position. Then without warning she asked for her husband, grew cyanosed, dyspneic and died in a few minutes. When her husband arrived I was unable to obtain permission for further examination, but presume that it was a pulmonary thrombus.

My second case occurred in the person of Mrs. J. D., 35 years of age, the mother of two children, the youngest being 4 years old. Her history in other respects is not interesting. Since the birth of her last child she has suffered almost continually with backache. At times this was so severe as to cause her to go to bed, and this was the symptom which brought her to me. She had had local treatments for six months without relief.

Examination of the chest and abdomen was negative. By vaginal examination a large, heavy uterus was felt, the fundus of which lay in Douglas' pouch. The ovaries and tubes seemed normal. Pelvic floor slightly lacerated.

It was thought that an operation to correct the retroflexion would be sufficient to relieve her backache, and my recommendation to her was to the effect that if she thought she had pain and inconvenience enough to warrant her in going through the operation that I would do it for her. The dangers of the operation were explained to her as nearly as possible, and she was left to make her decision. This she did after several days' consultation with members of her family, and she entered the Lutheran Hospital, where she was operated on July 7. The operation consisted of a ventrosuspension by catgut and an appendectomy. The uterus was found so large and soft that for a time a suspicion of pregnancy was entertained; but, being decided in the negative, it was suspended as the best way to secure drainage of the organ and relieve the symptoms.

Her progress was not ideal. She had a slight rise in temperature now and then. Her pulse was not fast, however, and we were not frightened about her in the least. She complained of some abdominal pain, principally in the epigastrium, which we supposed was ordinary gas pain and for which we used the colon tube and stimulating enemata with good results. At 2 p. m. on July 12 her chart shows the pulse 76 and temperature 99.4 F., and she expressed herself as feeling well. Some time after that she became suddenly dyspneic, cyanotic and apprehensive. The pulse grew weak and rapid and she began perspiring freely. This was immediately reported to me, and I reached her not more than ten minutes later, which was only a few minutes before she expired.

The post-mortem examination disclosed nothing in the abdomen which would account for death. There was no peritonitis anywhere and no pus. A small amount of bloody serum in the pouch of Douglas was the only thing abnormal in the belly. The uterus had been held well up and the organ had been reduced to about half its size at operation.

The heart was arrested in systole. The left ventricle contained clots as did also the right. The latter where in contact with the wall were becoming grayish. There was no macroscopic lesion of the ventricular walls or valves.

The pulmonary vessels also contained clots, especially the right which, while not typically chicken-fat, was becoming light in color.

All the abdominal and thoracic organs were normal.

I trust that any who have had similar experiences will relate them.

TYPHOID PERFORATION AND ITS SURGICAL TREATMENT *

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From 1901 to 1905 our death-rate from typhoid fever was nearly three times as high as that of England and Wales or Scotland, and over twice that of Ireland. It was double that of such thickly settled country as Belgium and over four times as large as that of the German Empire. This is a sad commentary on the intelligence of a nation whose people aspire to the front rank of culture while they fail to pass such legislation as would make it possible for our health authorities to greatly reduce the prevalence of this preventable infectious disease, which, according to the 1900 census, caused 35,379 deaths in the United States. Shame on all those who through ignorance or personal greed are trying to prevent the establishment of a National Department of Health, whereby our sanitation might be so advanced as to place us on a par with the coun-

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tries just mentioned and whose health conditions are under governmental control.

Of all the complications of typhoid fever there is none so uniformly fatal as perforation, and probably in no disease are the physician and surgeon brought face to face with a more serious group of symptoms — a patient already ill with a severe infection, whose condition is rendered doubly serious by the advent of a perforative peritonitis.

The statistics of different countries vary as to the frequency of perforation. Scott in 1905 collected figures from English, Australian, Canadian and American hospitals, and found in 9,753 cases of typhoid 1,037 deaths in which 351, or 33 per cent., were due to perforation. In a series of 4,230 cases studied by him at the Pennsylvania Hospital, there were 349 deaths, 110 cases of perforation, or 31.5 per cent. In this series probably eight or ten cases of perforation were excluded for want of direct operative or autopsy proof.

There is reason to believe that complications of typhoid fever have been modified in recent years by treatment, except hemorrhage and perforation, and for this reason the perforative mortality has increased in proportion to the general typhoid mortality.

According to Osler "the probability of recovery without operation after perforation of the bowel in typhoid fever is not worthy of consideration"; and Johnson says "practically all cases of typhoid perforation, untreated surgically, are fatal." The opinions of others are the same, and it is almost certain that not more than 1 per cent. of typhoid perforations recover without surgical treatment.

Scott, Osler, Anders, Johnson, Kelley and others advise that 20 per cent. of the cases coming to early operation are saved. Some individual operators report even better results, 27 or 28 per cent. In face of such facts surgical treatment should be the rule and not the exception. There is no medical treatment for typhoid perforation.

Perforations vary from a minute orifice in the center of a Peyer's patch to a considerable opening the size of a 10-cent piece. They usually occur on the free border of the intestine opposite the mesenteric attachment, more often in the ileum within 12 or 18 inches of the ileocecal valve, usually single and occur during the second or third week of the disease as a rule.

The symptoms of perforation of a typhoid ulcer are the same as in perforation of the bowel under other conditions, modified in some instances by the existence of the specific disease. At times the diagnosis is quite simple while at other times it is very difficult and occasionally impossible, due to the apathetic condition of the patient from the typhoid poison, tympany or delirium which mask all other symptoms. Usually the diagnosis may be accurately made from the pain, temperature, pulse, facial expression and physical signs.

The conditions are often most unfavorable, the patient being so far reduced by the typhoid intoxication, hemorrhages and other complications that perforation simply comes as the last ounce of weight which breaks the feeble thread of life. When perforation has been diagnosed, no matter how desperate the condition of the individual, nothing is gained by delay, and operation should be resorted to at once provided the patient is not in a moribund condition.

Ether is a powerful heart stimulant and should be used in preference to chloroform or even local anesthesia. The surgeon should surround himself with every aid to enable him to operate accurately and at the same time with the utmost despatch. The matter of a few minutes on the operating table frequently determines the question of life or death in these cases.

I will add brief histories of two cases coming under my observation.

Case 1.—W. M., farmer 34 years of age, had a mild attack of typhoid fever. For seventeen days there was nothing unusual, but on the eighteenth day he was suddenly seized with severe pain in the abdomen, localized more or less distinctly in the region of the umbilicus and later in the right lower quadrant. Temperature 102, pulse 149 and increasing. His physician, Dr. Empson, at once suspected perforation and his diagnosis was later confirmed by Drs. Osterman, Ritter and myself. Within four hours from the onset of the pain we operated, and on opening the abdomen found quite an extravasation of bowel contents in the peritoneal cavity with the characteristic fecal odor. This was carefully cleansed, and an examination of the intestines revealed numerous typhoid ulcers in various stages of ulceration, and within 10 inches of the ileocecal valve a large necrotic area with a large perforation in the center. On account of the size of the opening, three-eighths of an inch, and the extremely fragile condition of the surrounding bowel it was impossible to close the opening without making a resection. About 3 inches of the bowel was resected, including the entire necrotic area, and the anastomosis made by the use of the Murphy button. The abdomen was again thoroughly cleansed and closed with drainage. The patient reacted promptly. Vomiting, pain, tenderness and rigidity were relieved, temperature and pulse both reduced and the patient gave promise of an early recovery. However, the typhoid intoxication persisted with frequent diarrheal stools. On the

eighteenth day following the operation the Murphy button was passed without difficulty and on the thirty-first day after the operation he died apparently from the exhausting influence of the typhoid intoxication.

Case 2.—H. W., farm laborer, 27 years old, was under treatment for twenty-three days for typhoid fever. The case had run a mild course and for two days had had a normal morning temperature and an evening elevation of one-half degree. Observing from his window some grapes in the arbor he persuaded one of the children to get him some which he proceeded to eat. About one hour later I was called hurriedly and found him suffering severe pain of an intermittent character, vomiting, abdominal tenderness and right-sided rigidity, pulse 160, temperature 97, cold perspiration, and pinched, drawn expression of face. This was clearly a case of perforation and operation was immediately performed. Incision at the border of the right rectus and a perforation about the size of a pin-head found about 8 inches from the ileocecal valve. There was very little extravasation and scarcely any soiling of the peritoneal cavity. The opening was closed with a purse-string suture of fine silk and covered with omentum, the abdominal cavity thoroughly cleansed and closed without drainage.

Pulse soon dropped to 100, temperature rose to 99 and the patient made an uneventful recovery.

The sudden onset of pain with vomiting, tenderness and rigidity were the prominent symptoms in both cases. In Case 2, with a very small opening and little extravasation of bowel contents, the symptoms of collapse were very much more prominent than in Case 1. Both occurred in apparently mild cases, yet in Case 1 the condition of ulceration could hardly have been worse. Both cases would have resulted in recovery had it not been, as mentioned before, for the existence of a disease the specific toxemia of which alone was sufficient to sap the patient's vitality.

The technic of the operation may be safely left to the individual surgeon as it does not differ essentially from that of perforation from other causes. I would suggest that since the larger number of perforations occur in the right lower quadrant that an incision at the border of the right rectus will be the most convenient both for exploration and drainage. Some surgeons insist that all cases should be drained; an opinion in which I do not concur. It is a well-established fact that the peritoneum is capable of caring for considerable infection and unless there has been an extensive lesion with much extravasation I am of the opinion that the case will do better without drainage, as in Case 2.

The points that I wish to emphasize are that perforations are more frequent than we think, that they are often overlooked in our diagnosis, and that when they are diagnosed they should be referred for operation without delay.

DISCUSSION

Dr. Miles F. Porter, Fort Wayne: There is no surgical treatment of typhoid, but many of the complications are surgical in character.

Holscher found that in 2,000 fatal cases, 76 per cent. of the deaths were due to complications and only 24 per cent. to the typhoid *per se*. Many complications are surgical. The surgical aspect of typhoid is therefore a large and important one. Keen's Toner Lecture in 1876 gave birth to the "surgery of typhoid," and his book on the Surgical Complications and Sequels of Typhoid is a classic.

Certain facts concerning the bacillus of typhoid and the character of the primary infection should be borne in mind in discussing this subject.

1. This bacillus may live indefinitely in the human economy.
2. It is a pus producer.
3. Typhoid fever is primarily a blood infection.

Will you pardon me if I repeat here a quotation from Shakespeare of which I am very fond and have frequently used because of its aptness, and which may be found in Condie's edition of Watson's Practice. It runs thus:

"The life of all his blood is touched corruptibly,
And his pure brain, which some suppose the soul's frail dwelling house,
Doth by the idle comments that it makes
Foretell the ending of mortality."

It follows therefore that the surgery of typhoid comprehends the whole subject of surgical infection, and is of interest therefore to the laryngologist, the dermatologist, the gynecologist, the otologist, the ophthalmologist, the orthopedist, the obstetrician, the neurologist, the urologist and the pediatrist as well as to the general surgeon.

It is obviously impossible in the time allotted to even touch on all the points of interest which come within the domain of the general surgeon, let alone those which may be said to belong to the specialist.

Next to the laryngeal complications of typhoid, bone complications are most common. My own experience is that the ribs are more often involved than any other bones and especially the anterior aspect of the right ribs overlying the liver; that the trouble is usually a more or less disseminated or multiple osteomyelitis which requires for its cure complete removal of the infected tissues.

Gall-bladder infection is a frequent complication of typhoid and the fact that perforation occurred in nearly one in three of the recorded cases argues for the necessity of relatively early operation in typhoidal and post-typhoidal chole-

cystitis as compared with cholecystitis of other origin. A large number of these cases are practically symptomless until perforation occurs. It is the duty of the physician, therefore, to examine his typhoid patients frequently with the view to the recognition of the condition before perforation occurs. Either tenderness or tumor or both may be found in the gall-bladder region when there are no other signs of the trouble. The majority of cases of typhoidal perforative peritonitis arise from perforation of the ileum, the appendix, the cecum and the gall-bladder mentioned in the order of their frequency — and all demand prompt operation.

Typhoidal cholecystitis, as before remarked, also requires relatively prompt operation because of the large percentage of cases in which perforation occurs. The converse is true, however, of typhoidal appendicitis. This is especially true of those cases wherein the symptoms of appendicitis appear after the second week of the typhoid or later. In this class of cases the rule should be to get ready to act promptly, then watch and wait. Given a patient in the first week of typhoid presenting pronounced symptoms of appendicitis and immediate operation will be the safest treatment. Especially is this true if the patient gives a history of previous attacks of appendicitis. In other words, true typhoidal appendicitis, barring perforation, would better be treated without operation while appendicitis from the common infections occurring during the course of a typhoid requires operation as a rule. It is not always possible to distinguish between those two classes of cases, but in the present state of our knowledge it would seem wise to regard all cases of appendicitis occurring the first two weeks of a typhoid as being non-typhoidal in origin and all those commencing later in the course of the disease as typhoidal.

Dr. Paul F. Martin, Indianapolis: I under stand that the title of Dr. Graessle's paper is "Surgical Treatment of Typhoid Perforations," and I want to congratulate the doctor on his choice of subject — a subject of such vital importance, in which it has been shown conclusively that at least 30 per cent. of those operated on recover, and in which at least 99 per cent. of those unoperated on have died. Dr. Graessle furthermore urges — and justly so — that we should give our typhoid patients even greater care and closer study, that the obscurity surrounding an early diagnosis of typhoid intestinal perforation be cleared up, and that the difficulties in diagnosis of typhoid perforations instead of the perforations with peritonitis be diminished, so that the patient may be taken to the operating-table possibly before the onset of peritonitis, which complication is responsible directly for the fatalities. Until now we have operated for the peritonitis instead of for intestinal perforations. The later manifestations have brought the patient to the operating-table instead of the initial manifestations of perforation.

Now, the surgical indications are so obscure because of the blunted senses of the patient, who is suffering from a primary disease which makes the symptoms, ordinarily clear in typhoid, uncertain. Of these the most prominent, and possibly the most reliable, is the sudden pain, the sudden severe pain. Later on it may be followed by muscular rigidity. The other symptoms which are classically termed indications for operation, such as abdominal distention, tenderness, collapse, the significant features of rising of the pulse, a falling temperature and a rising temperature, are later manifestations, and often they are diagnosed too late for any surgical relief whatever.

The Blood-count in these cases is of very little help, as the changes take place too late.

I would like to call attention particularly to the collapse which Dr. Graessle has spoken of in connection with one of his cases. I believe as a rule early collapse following the pain is indicative more often of hemorrhage rather than of intestinal perforation. I had my attention called to this forcibly in connection with a case I saw with Dr. Fletcher, a case of rupture of the spleen in a typhoid patient. The patient was seized with a severe pain followed immediately by severe symptoms of collapse. Stress was laid on this fact, but the patient was operated on for intestinal perforation on account of the suddenness of the pain. The operation showed the abdomen filled with blood; no intestinal perforations were found. There was a split in the spleen 4 inches long. On very slight manipulation of the spleen the tear was increased several inches. A splenectomy was done, and after about twelve hours the patient died.

President Heath: I notice in the audience the new medical dean of Indiana University, Dr. Emerson. I am sure we would be glad to hear from him on this subject or any of the other papers.

Dr. Charles P. Emerson, Dean of Indiana University Medical School: It has been my fortune to see a good many cases of perforation in typhoid fever. I spent nine years in Johns Hopkins Hospital, and I remember one year we had twelve cases of perforation. We operated on suspicion. Our record was that we operated one-half as often without finding perforations, but we did not hesitate to operate on suspicion. It sounds like a fairy story, but it is our candid opinion that the operation in typhoid fever is not such a very serious matter. We have seen it change a severe type into a mild type. I mentioned that once to Dr. Wright, of opsonic index fame, and he said it was easily explained, that it was an autogenous vaccination of the patient, and

the fact remains that practically none of them showed bad results from the operation, and if later they did die it was from a further hemorrhage or some other development of the disease. I do not consider it a thing to be done with great caution. Counting all of the cases, we were able to save about one-third. These figures are misleading, for this reason: Typhoid fever varies greatly from year to year. Several years we had no otitis media; then we had five cases. One year we had twelve perforations, and the next year we had only three operated during the whole year. Some years we had a good deal of pulmonary complication; other years none. One year we lost almost every perforation case we operated on, and the next year we succeeded in saving all but one.

The typhoid cases in the hospital were visited every night. A typical case is where the patient is comfortable, but complains of a sharp pain in the abdomen every few seconds or a minute. The next point is that he will turn over comfortably and go to sleep, and if the doctor rouses him he will be angry. That is a typical case of perforation in typhoid fever. Then we would have a doctor sit by the bedside and take the blood-count every half hour. We had to get the curve every half-hour in order to get any help at all, and it was from the variability of the curve that we determined whether we had an active operation in the abdomen.

Another point is the mental torpidity of the patient. I remember one case of a patient who at 4 in the morning had fairly characteristic symptoms. We hesitated to operate, we called in several physicians to advise whether to operate, and they advised us not to do so. The patient was comfortable and was able to crack a joke with us. But he was worse that afternoon, and on opening the abdomen we found considerable pus. Now there was a man who was as rational as typhoid patients ever are, and he was in a very happy frame of mind, and yet he had a soft abdomen that was full of pus. But that was an unusual case; it is the patient who has pain which lasts but a few seconds, the patient who is comfortable — that is the patient we suspicion. Then we waited for confirmatory symptoms — nausea or hiccoughs, rise of the leukocyte count, rise of the respiratory rate. If we had one confirmatory symptom we operated, and the total number of successful cases was about 33 per cent. I thank you. (Applause.)

Dr. H. O. Pantzer, Indianapolis: The essayist emphasized many important points, not to say duties. Cases of typhoid perforation operated can be saved; unoperated, they will invariably go to death. Operations done late invariably end in death. Operations should occur at an early stage. The initial symptom as set forth by Dr. Emerson, the pain, the acute, sharp pain such as the patient has not previously had, is a warning note that must be heeded, and on such evidence — this unusual pain within the abdomen — a surgeon should be called.

As regards the effect on the patient of operation, I can confirm fully what Dr. Emerson has reported. The condition of the patient immediately following the operation is decidedly better.

Dr. Porter spoke of typhoidal appendicitis as not always requiring operation. I had a case of most fulminating type of appendicitis on which we operated. The case previously had run a high temperature, with very large involvement of the sensorium. Immediately afterward he showed lower temperature, less involvement of the sensorium and a decreased pulse-rate. That case ultimately went to death, but he had had three or four days of temperature of 104 and 105 previous to the operation, and after the operation he had only 102. But then the patient took the regular course of typhoid of grave type, and died.

In regard to the frequency of gall-bladder affection ending in death being one case in three, I overheard a remark of the gentleman next me, that that was an exaggerated statement. This leads me to say that I would concur in that view of it. However, if you have a tender gall-bladder in a typhoid patient, you have a thing that is very menacing. I have been called to operate on a case of gangrenous cholecystitis where the patient was moribund and nothing could be done.

The practice followed at Johns Hopkins of having these cases visited and gone over every night is very good.

As to the gall-bladder being affected, it is almost invariably affected in typhoid fever, and the life of the typhoid bacteria is long. It has been found seventeen years after a case of typhoid fever. The gall-bladder will maintain these bacteria without taking the infection. In other cases we have gall-stones form as a consequence of such infection, and ultimate death.

Dr. Porter: I did not say that one case in three of typhoid cholecystitis perforates. What I did say was that in the reports of cases of typhoid cholecystitis one in three perforated. I do not think this is an accurate statement.

Dr. D. F. Lee, Indianapolis: I want to emphasize a few things in regard to the early recognition of perforations and the advantages of operation. In my own experience I have had the pleasure of operating three cases. Two died, and one was a success. I think perhaps I added to the cause of death in one case by trying to be too nice about the operation, and thus prolonged the operation too far. As to what the doctor said about operating on suspicion, I agree with that. I think many cases are benefited by operation. Cases that seem to be almost moribund, get well, and they certainly would have died without such help. So I would advise early operation, and

operating even on suspicion rather than let the case get away from you.

Dr. J. Rilus Eastman, Indianapolis: I welcome this paper and its discussion as I have no other in years. It is noteworthy of comment that these surgeons who have discussed this paper have made no allusion to cases operated by themselves. Did you notice that, gentlemen? These busy surgeons cannot point to cases operated by themselves. That indicates to me that Indiana is indeed away behind all of the other advanced states in this regard.

It was very pleasing to me to hear Dr. Emerson speak of the valuable effect of merely opening the abdomen in these cases. It has long been established that the opening of the abdomen affords there a good entrance of new soil, and whether it brings about a certain reaction which interferes with the progress of the disease, or just what happens, we do know, empirically at least, that the opening of the abdomen in these cases, if it do no positive good, does mighty little harm, even if we are not able to find the point of perforation. I think there is no question confronting us in Indiana to-day to which we can address our endeavor with more profit than to this one.

Dr. Louis Burckhardt, Indianapolis: I want to present a post-mortem showing of a case operated on one week ago. The case had been seen by Dr. Emerson and another gentleman, and we determined on an operation for perforation. The operation showed a very large ulcer in the bowel, indicating a beginning infiltrating process. The particular indications for the case were such as Dr. Emerson has outlined. The case died from very profuse hemorrhage. There were about twelve ulcers. I have this specimen which I wanted to bring before your eyes. The point I want to direct your attention to is that fifty-four hours after the operation the three ulcers that had been stitched had absolutely healed up. Here again in this case there was absolute absence of uncomfortable reaction, and even if the case did pass away in my hands, it was operated too late, and I absolutely and firmly believe that abdominal surgery in typhoid fever is one of our main helps. The results show that we have more of the healing power in our hands than we used to.

THE CAUSE OF HYPERTROPHIED PROSTATE

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I believe that the term "hypertrophied prostate" should before long be abandoned, as has been the appellation Bright's disease. We now speak of a particular variety of nephritis. So in the future we will define etiologically, histologically and pathologically the variety of prostatic enlargement we may be dealing with. We recognize decided end-differences now. When we know more of etiology we may acknowledge quite as essential differences in the causation.

Casper points out three pathologic forms: the nodular myomatous, the diffuse fibromyomatous and the adenoid hypertrophic. This classification eliminates the almost pure connective tissue (sclerotic) prostate that probably most often follows as the end-result of chronic inflammation. Inflammation is not generally credited with having anything to do as an etiologic factor in the development of the condition ordinarily described as "hypertrophied prostate."

I wish to trace an analogy between the clinical histories of uterine fibromata and hypertrophied prostate and to deduce an etiologic theory which is a piecing together of hitherto well accepted isolated facts, but which I have not seen stated in the way of a definite and harmonious theory.

Uterine fibromata appear during the active period of uterine function. Practically they never develop before puberty or after the menopause. Stated in another form, their growth is made possible by the heightened blood-supply of this period. They appear in both pregnant and non-pregnant uteri. So far all women are subject alike to these conditions. What is the direct determining cause? Here there is a wide divergence of opinion. One much discussed idea is that the point of origin is in some embryologic inclusion: often a group of muscle cells that are in some unknown way checked in their progress to maturity. They remain dormant unless stimulated in some equally unknown way to take on delayed growth. This inclusion may be a glandular process pinched off from the endometrium. It may be the embryonic connective tissue cells. It is not idle conjecture to give some credit to this explanation since all in all it seems more satisfactory than any other that has been offered.

Given a woman carrying in her uterine wall inclusions; when the time of increased blood-supply is reached they receive their impetus to delayed growth and we have established all the various forms of uterine fibromata. It is fair to assume that many of them remain dormant, but this point is not essential to our argument.

To return to our proposed analogy: It is assumed by competent authorities that man, too, has in his prostate similar inclusions of muscle, gland and connective tissue elements. At first glance, if the parallel is to hold, his hypertrophied prostate should assert itself during the period of early and middle life when the gland

is at its highest functioning activity (the time of the greatest normal blood-supply). As a matter of clinical fact, hypertrophied prostate does not arise at this time. Why not? We do not know. There is either some inhibiting influence working at this time or still some contributing factor lacking.

It is only necessary to go a little farther along this same line. The prostate is surrounded by a venous plexus (plexus of Santorini). It lies between the true capsule of the prostate and the capsular sheath derived from the pelvic fascia. This plexus receives the blood from the prostatic veins and also the dorsal vein from the penis. The veins of this plexus are peculiarly subject to varicose degeneration which in itself means a retarded blood stream and passive engorgement. Additionally the vessels of this plexus are more prone to the formation of phleboliths (vein stones) than any other group of veins in the body. Again, this condition means obstruction, an increased retarding of the blood stream and still greater passive engorgement.

With varicosities and phleboliths plus pressure within the strong prostatic sheath, you have a venous hyperemia that is extreme. As a result we have hemorrhages from the prostatic mucous membrane due to engorgement alone. The frequency of the formation of phleboliths may be judged from the fact that nearly all of the *x*-ray pictures of old prostatics show such shadows. They are almost constant.

Here we have a condition favorable to prostatic hypertrophy — inclusions plus a greater than normal blood-supply, made possible, first, by varicosities; second, by phleboliths; and third, by increased resistance from the unyielding fascial envelopes. Whether the hypothesis is true or not, it seems to fit into our daily clinical findings. The apparent stumbling-block in the reasoning of many has been the part played by the sex function. I believe we may fairly dismiss it except as a factor in blood-supply (engorgement). The menopause diminishes blood-supply. Castration as practiced a few years ago did just this, perhaps nothing beyond this.

Inclusions, varicosities, phleboliths and accompanying pressure — all producing passive hyperemia — seem to me a rather satisfactory correlation of facts. I find myself constantly turning to this explanation in those cases that we may fairly term hypertrophied prostate in contradistinction to cases of chronic prostatitis due to long-continued and mixed infection.

THE CRIMINAL INSANE *

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The subject of the criminal insane is indeed a comprehensive one and remotely but nevertheless vitally related to all the activities of social life. This class has its origin in the imperfections of our civilization.

That we may deal with this subject in a logical manner it is necessary that we briefly study the instinctive criminal and the causes which produce him. "The social organism is compounded of individuals, classes and institutions, much after the manner in which the human body is composed of cells, tissues and organs. These organisms are subject alike to disease and impaired functions. This disease or defect is degeneracy, the symptom of which in the social body is crime; and the causes which produce it produce alike the criminal, who is an individual out of harmony with his environment and is antisocial in his tendencies." He is an index to the defects of our social fabric: so to speak, he holds the mirror up to Nature. Lacassagne has well said, "Society has the criminals it deserves."

The primary causes of the criminal degenerate are hereditary tendencies and the influence of environment; and, in the last analysis, environment is transformed heredity. These two factors are so inseparably united that a distinct line of demarcation cannot be drawn. Neither of these forces acts alone.

The doctrine of inherited degeneracy is, in many respects, a cold and heartless one, and has oftentimes been refuted for sentimental reasons which are not borne out by statistics. However, much of the skepticism concerning this doctrine will be dissipated after a careful and systematic study of many criminals. Crime is a manufactured product, and the result of the law of cause and effect.

The serious struggle between capital and labor has a disastrous effect on the poor. Their strength is undermined and devitalized by the fierce struggle for existence. The sweat-shop systems which employ women and children and pay hardly sufficient wage to buy food and clothing are one of the many examples of our faulty industrial organization. Many of the children of the extremely poor are born into the world with defective organisms, and are received into environments of poverty, ignorance and crime. Even the benign influences of proper food and

* Read at the Indiana State Board of Charities Conference, October, 1911.

clothing are denied them. The opportunities for mental and moral education are practically destroyed in their struggles with the fierce greed of commercialism.

In our rich and well-to-do classes luxurious idleness, conventional debauches and the continuous round of excitement to appease a hysterical and unsatisfied craving for novelty are among the causes which operate to produce a decadent and vitiated progeny.

The defective offspring of both these classes reproduces itself, and a vicious circle is established. A classical example, and proof of inherited social degeneracy is the history of the Jukes family, which descended from the infamous "Margaret, the mother of criminals," till the number was over 1,000. Born in crime, reared in crime, environed by crime for seventy-five years, these were the pest of the country in which they lived. The genealogy of 709 of this family has been collected, covering nearly seven generations. Of these, 180 were in the poor-house, or received outside relief, costing the community $75,000 for maintenance; 50 per cent. of the women were harlots; 140 were criminal offenders whose total stay in prison aggregated 150 years and whose arrests numbered 250, the cost of which was fully $25,000; sixty were habitual thieves whose aggregate period of depredation amounted to 720 years and whose murders number seven, to say nothing of lesser crimes or the crimes of those whose lineage could not be traced. Such a tale coming from the marriage of two criminals with families raised in various environments makes one shudder; but it tells the tale of deeply depraved blood and corrupt environment.

The study of 252 admittances to the Indiana State Prison for the years 1910-1911 reveals the fact that the antecedents of sixty-nine prisoners had tuberculosis; forty-three gave a history of insanity, epilepsy or feeble-mindedness of one or both parents; sixty-one of the inmates were infected with syphilis; 152 drank to excess; eighty-one drank moderately and ten used narcotics.

These figures are startling and disagreeable to contemplate; but they cannot be ignored or passed over with indifference by the intelligent person. We are forced to believe that immorality has a biologic basis; and unless we combine medical care with our mental and moral instructions our efforts will be in vain.

Anthropology has thus far failed to establish a distinct criminal type; but the marks of constitutional inferiority are uniformly present in our prison populations. Among the anatomic defects common to the criminal class are malformations of the skull, teeth and palate. The physiologic stigmata are quite uniformly consistent. Here we have perversions of the sexual instincts, defects of speech and disorder of the nervous system and insensibility to pain. The psychic stigmata are more sharply defined, showing an exaggerated amount of egotism, inability of continuous application to manual work or study, ill-balanced mental activity, moral anesthesia, and emotional instability. The esthetic taste is, many times, depraved; tattooing is quite frequent as is common among savages and people of primitive order.

After a careful review of these facts we arrive at the conclusion that the true criminal is a degenerate; so defective in his physical and mental make-up that he falls in a class below the normal man in his reversion to type. He is out of harmony with the existing times and is unable to adjust himself to modern conditions, because of his defective organization.

When this type of individual comes in conflict with the law and is subject to confinement he exhibits his organic and inherent defects, and active insanity is oftentimes developed.

A startling per cent. of this type is apt to be found in any prison population. In the Indiana State Prison, whose population is 1,080, approximately 135 are insane.

The people of the United States are awakening to the necessity that a hospital for the insane should be a part of the equipment of every large penal institution. This is not altogether a new idea, for such hospitals have existed in England since 1786. The Bethlehem Asylum for the Criminal Lunatic was established in England in 1815. The famous Broadmore institution of the same character was founded in 1863; but in this country no effort was made to care for the mentally unbalanced criminal population until the state of New York in 1874 established such a hospital.

In the hospital for the criminal insane the following persons should be cared for: those criminals who become insane while serving sentences in prison; those persons whose acts are violations of the law of peace and safety, but are acquitted on the grounds of insanity; and those persons confined in ordinary psychopathic hospitals who commit dangerous acts.

There has been some objection made to the incarceration of the second class in criminal asylums. The reason for this objection has been largely founded on sentiment and the desire to evade the law through technicalities.

The community must be protected from the delinquencies of those persons who commit dangerous acts when the criminal intent is lacking. Persons committing murder and acquitted on the ground of unsoundness of mind should not be thrust back on the public perhaps to commit again the same or similar acts; their release alone establishes a precedent which is dangerous to the social order. The ordinary hospital for the reputable insane is not so constructed or its administration so directed as to properly care for the anti-social being who is held to be irresponsible. The civil and the innocent insane should not have forced on them the association of such an undesirable and dangerous class as are the insane criminals. These individuals should be cared for in hospitals especially adapted for that purpose.

The law governing the commitment of persons to a hospital for the criminal insane should be so constructed that its constitutionality cannot be questioned. It should be so drawn that while the individual will receive all due protection, society shall also be protected from the person mentally responsible but who seeks to evade the responsibility of criminal acts by a plea of insanity.

After comfortable and commodious hospitals have been erected for the criminal insane we must remember that we have only provided for certain developed products of the defects of our social fabric and have not thereby corrected the defects.

It is not within the limitations of this paper to speak of remedies for these wrongs; but suffice it to say there are excellent opportunities open to research by the student of social prophylaxis.

BIBLIOGRAPHY

White, Wm. A., M.D.: The Criminal.
Dugdale, Dr.: The Jukes.
Ferri: Criminal Sociology.

BOOK REVIEWS

Physiology. Medical Epitome Series. By A. E. Guenther, Ph.D., Professor of Physiology in the University of Nebraska and Theodore C. Guenther, M.D., Attending Physician, Norwegian Hospital, and Visiting Physician, Tuberculosis Clinic of the Bay Ridge Hospital, Brooklyn, N. Y. Second edition thoroughly revised. Lea & Febiger, Philadelphia and New York.

This little book contains a large amount of information in a small space. Doubtless there are many physicians who have not the time to study the larger books who will find this a most useful manual for constant reference.

Case Histories in Medicine. Illustrating the diagnosis, prognosis and treatment of disease. By Richard C. Cabot, M.D., Assistant Professor of Clinical Medicine, Harvard Medical School. Second edition revised and enlarged. W. M. Leonard, Publisher, Boston, Mass. Cloth, $3.00.

This edition of Case Histories in Medicine has been enlarged by the addition of more case histories and a more thorough discussion of prognosis and treatment. Puzzles are always stimulating. Dr. Cabot in this edition of his book presents the puzzles that are being continually met in medicine. If one does not read the preface before reading the histories he will not be in the proper mental attitude to derive the amount of benefit to be had from the book. As the preface says, the plan pursued is to present medicine in terms that will make the reader work. This object has been most admirably attained. Reading and studying the histories with this idea in mind is a source of pleasure as well as great benefit. Approaching the study of a case in the frame of mind which the reading of Dr. Cabot's case histories puts one in, cannot help but increase the reader's efficiency in coping with disease. The book in its present form is of as much value to the practitioner as the first edition is to the undergraduate student.

Recent Studies of Syphilis, with Special Reference to Serodiagnosis and Treatment. Medical Symposium Series No. 1. Second Edition (Revised). A reprint of articles published in the Interstate Medical Journal. Paper, 212 pp. St. Louis: Interstate Medical Journal Co. Price, $1.00.

This volume contains all the articles appearing in the first edition, together with more recent ones, not the least interesting of which is that by Engelbach reviewing the recent literature on "606" up to September, 1911.

Recent Studies of Cardiovascular Diseases. Medical Symposium Series No. 2. A reprint of articles published in the Interstate Medical Journal. Paper, 216 pp. St. Louis: Interstate Medical Journal Co. Price, $1.00.

A most interesting collection of papers by active and eminent clinicians in cardiovascular medicine.

Uncinariasis (Hookworm Disease) in Porto Rico. A Medical and Economic Problem. By Bailey K. Ashford, M.D., Major, Medical Corps, U. S. Army, and Pedro Gutierrez Igaravidez, M.D., Director of the Tropical and Transmissible Diseases Service of Porto Rico. Paper, pp. 335. Government Printing Office, Washington, 1911.

A comprehensive and detailed report of the hookworm problem in Porto Rico with an appendix containing the case histories of patients who were made the subject of special study.

Ophthalmic Myology. A Systematic Treatise on the Ocular Muscles. By G. C. Savage, M.D., Professor of Ophthalmology in the Medical Department of Vanderbilt University. Second Edition. Eighty-four illustrative cuts and six plates. Cloth, $4.00. McQuiddy Printing Company, Nashville, Tenn. 1911.

This second edition of Dr. Savage's well-known book shows many additions and corrections, and considerable new matter. While the author's teaching concerning the fundamental principles of ocular rotations is not in accord with that of the immortal Helmholtz, it is quite possible that an unbiased investigation of the subject, and a full understanding of the principles as laid down by Dr. Savage, will give many an ophthalmic student a change of view. Even though those who study the action of the ocular muscles may disagree with Dr. Savage in his contentions—and there are those who differ—a consideration of the subject from Dr. Savage's standpoint cannot but be interesting and profitable as throwing a new light on a problem which has been a difficult one of understanding for many students of ophthalmology.

We commend the book particularly to those who are interested in the study of the subject of ocular rotations.

(Continued on page 194)

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EDITORIALS

MORE LIGHT FOR THE PUBLIC

Pursuing further his investigation into the subject of evils extant in the modern practice of medicine, Dosch contributes an article in the March *Pearson's* on the subject of "Too Many Doctors," which is both timely and to the point. The article is prefaced by an editorial paragraph referring to a former article[1] which dealt with the subject of commercialism and fee-splitting in a more or less general way. Since the publication of this previous article the editors claim to have received communications from distinguished physicians throughout the country who were unanimous in their expressions of opinion that publicity was the only ultimate means for checking the evils mentioned.

There is no gainsaying the fact that as Dosch has charged, there are too many doctors in our country, and this very fact affords one plausible reason for the element of commercialism that has found place in fee-splitting. Not only does he describe the routine through which this process takes place but he calls attention to the estimable position which the doctor has always held in his environment, and hence notes the misfortune which is given birth by such practices. Indeed, he declares the most unfortunate part of the whole sorry business to be that the sincere and deserving man in the profession feels the pressure most keenly, refusing to stoop to catch-penny methods and suffering the loss of his next month's rent thereby. Even though the public did not have its own health to guard the author feels it his duty to take a hand in the interest of such honest practitioners.

He goes into the details of the report of Flexner to the Carnegie Foundation on the subject of the medical schools of our country, the subject-matter of which is familiar to most doctors. Flexner minced no matters in his thorough-going search and spared the feelings of none. As a result, of course, diploma mills and pseudo-medical schools were unmercifully gruelled, and when one stops to consider that out of 154 schools in North America grinding out graduates he could see an excuse for only thirty-one, twenty-six of which are in the United States, his radicalism can be appreciated. That he was telling only the truth nobody can deny, and it will be readily seen also what an overproduction of doctors, so-called, results. Germany has one doctor for every 2,000 persons and begins to fear overproduction. In the United States there is an average of one doctor to every 568 persons, while in the cities they are even thicker. New York has one to 460, Washington one to 270. The smaller towns are even more overcrowded. Crofton, Neb., with forty-six people, has two doctors; Wellington, Texas, with eighty-seven, has five, and it is not that these small town doctors serve a large community, for over large sections of the country no spot is 5 miles from a doctor, or even 2 or 3.

In the light of these figures, small wonder exists for the wild scramble for patients. Considering now the subject of unqualified doctors, Dosch rightly condemns the low requirements of the various states, and reminds us that even these requirements are not met, for it is not an uncommon practice for second year students to pass their state examinations. Naturally the diploma mills are concerned with just two things, one, their own fee, the other, qualifying their student just sufficiently for him to slip through his state board examination. Flexner called attention to the fact that these superfluous doctors were usually poor doctors, and Dosch adds that they are too often also poor citizens, having debauched the profession into which they have crept. Financially, however, they are more than likely to be a success.

Among the various forms of acquiring business may be considered first, contract doctors, and the results of the campaign instituted by the Erie County (N. Y.) Medical Society are reviewed somewhat in detail. The author mentions the druggist's rebate evil as well, though he considers it perhaps the least important of the ones that are at present threatening the public. His remedy for eliminating the contract system is voiced as follows: "If you are paying a doctor under a contract, be sure that you and the others who are footing the bill have the naming of the doctor. Do not leave it to your employer to choose some honorable (?) man. Do not let your employer have anything to do with it. Avoid the doctor whom you have not named or do not pay. For the dangers in that you can take the word of the best men in Buffalo."

Regarding fee-splitting, the author realizes the situation to be the most difficult problem for

1. The Force of Medical Ethics. Pearson's, September, 1911.

solution. While the protest within the profession shows an admirable spirit, the generalship is poor because of the fight being directed against the effects and not the causes of the evil. Such causes are the overcrowding of the profession, the low standard of many of the men who are licensed to practice, and the aloofness of the only ones who are in a position really to check the evil. That such aloofness is, however, fast disappearing is shown by the fact that only recently the New York Academy of Medicine has sent out a strong appeal to its members to shun the evil.

The rottenness of the practice is described by a high official in the School of Medicine of the University of Kansas who says that he knows of instances wherein men have visited towns and offered 66⅔ per cent., and in one case 75 per cent. commission for cases referred. A few of the better Kansas surgeons are holding out against the practice, but almost invariably their incomes are small and their practices not what their attainments deserve. The evil has spread country wide. In New York, where the school conditions are good, some fine surgeons are being starved out. In Oregon, last summer, a sick man had to take a long journey out from the interior and was in charge of three physicians at various points, all urging on him the necessity of going to the same surgeon, in Portland. Suspecting the truth, viz., that all were looking for commissions from the city surgeon, he went to another.

Then Mr. Dosch proceeds to throw a bomb at "medical ethics," which he regards as a relic of medieval mysticism. And in the light of the present trend of surgical bartering, his indictment of our system of ethics is a just one. Doubtless when the present code was compiled, it was assumed that those individuals who were to be mutually bound by its compacts were instinctively bound already by just as high personal ethics; in other words, it was taken for granted that all doctors were, first and foremost, honest men. To-day, however, we must hark back to the fundamental golden rule for our ethics and further refinements pertaining to the profession must needs take on the form of "honor among thieves," about which no layman has a right to ask questions. If a surgeon wishes to know the circumstances of a patient referred for operation, he must, forsooth, ask the physician, not the patient, and the charge is arranged with the patient absent. Why not get back to plain, honest principles? Credit the patient with sufficient honor to tell his own circumstances and let each man charge him accordingly.

The author again discusses the merits and disadvantages of the "joint-bill" and rightly emphasizes the fact that even such measures are not going to protect against unnecessary operations. He does not say, however, that "joint-bills" could and would become mere subterfuges, for the man who descends to the level of commission-giving probably would not hesitate to descend to more ulterior practices than the "joint-bill" would seem to present to the patient. Who is foolish enough to believe that a 75 per cent. surgeon is going to put such figures on the patient's bill with the consent of the referring physician?

The solution seems to lie in drumming into the public the necessity of learning more about the qualifications of individual doctors, both mental and moral, and not taking so much for granted concerning the all-too-broad title "M.D."

CHILDBIRTH IN ELDERLY PRIMIPARÆ

Although every obstetrician probably has his own very definite ideas as to the influence of age on primiparous women, yet there exists a rather astonishing paucity of text-book literature on the subject. It is because of the scarcity of data that such articles as Dr. Kate Spain's published in the March issue of the *American Journal of Obstetrics*, are all the more interesting.

Various authorities differ as to what should constitute the term "elderly" primipara, Leopold holding the twenty-eighth year to be the termination of youth, Schultze, von Winckel and the majority of other authors regarding thirty as the turning point. Ahlfield regards the thirty-second, and Mangiagalli the thirty-fifth year as the beginning of "old age" as far as child bearing is concerned. Spain defines an "elderly" primipara as one who bears her first child between the thirtieth and forty-fifth years.

Though late marriage is the most frequent etiologic factor of late conception, others exist, as uterine malpositions, cervical catarrh, tumors, congenital malformations, sexual frigidity and sterility of the husband.

The course of pregnancy remains uninfluenced by increased age, although some authors claim that complications are more common in the elderly. This latter statement lacks substantiation. While fibroids occur more commonly in the older, yet they seldom complicate either pregnancy or labor. That albuminuria and other renal disorders are not especially common is proved by Tarnier's 111 elderly patients with albuminuria in only 6 per cent. Likewise there were no cases of eclampsia in Tarnier's series.

DeKoninck's claim for increased frequency of ectopic gestation in elderly primiparæ lacks confirmation.

Practically all statistics agree on the more frequent occurrence of twins in the elder than the younger primiparæ. Prinzing having found twins in 4.14 per cent. of primiparæ, 30 years or more old, studied.

For years there has existed a tradition firmly implanted in both medical and lay minds that labor in elderly primiparæ is more protracted and severe than in younger women. Yet the surprising ease and rapidity of childbirth experienced by some elderly primiparæ would seem to contradict such a tradition.

The duration of labor in any case is dependent on four factors, viz., (1) the force of uterine contraction; (2) resistance of soft and bony parts; (3) the size of the child; (4) position of the child. Some authors (Webster, Stinemann and Caillods) ascribe feeble uterine contractions to the labors of elderly primiparæ. It is possible that the coexistence of fibroids may occasionally affect the power of uterine contraction.

Edgar found 25 per cent. of pelvic deformities in his forty-seven cases of elderly primiparæ and other authors mention similar findings. It has long been considered that rigidity of the so-called soft parts and especially the cervix is more characteristic of the older primiparæ, and that such rigidity has been responsible for an undue prolongation of the first stage of labor. With this view Dr. Spain takes decided issue because this rigidity will exist in practically every primipara whatever her age be. Were the *vis a tergo* strong enough any cervix would relax, but in the elderly primipara the primary inertia accounts for the resistance of the cervix.

Perineal resistance is not sufficient to account for any pronounced prolongation because the perineum will tear rather than resist the oncoming head for any length of time. Regarding the size of the child, Halban presents the views of most writers that as a rule the weight of the child increases proportionately to the advancing age of the mother, and to the increasing number of her pregnancies. Wernich observes that in primiparous women the weight of the child increases up to the forty-fourth year and the length to the fortieth year of the mother. Schroder concludes that the great transverse diameter of the fetal head becomes disproportionately large when the age of the mother exceeds 35. Vicious presentations of the children are without doubt very frequent in elderly primiparæ, Edgar, Courgenon and Stinemann all agreeing that oblique and breech presentations are more common in the elderly.

Statistics differ regarding the duration of labor in elderly primiparæ, from sixteen hours (Courgenon) to forty and forty-five hours (Webster).

The prevalence of one or more of the above-named factors explains why operative termination of labor becomes necessary in a rather large percentage of cases. Of Edgar's forty-seven cases only thirty, or 63.8 per cent., could be spontaneously delivered, the remaining 36.2 per cent. being delivered with forceps. Tarnier had to use forceps in 27 per cent. Scheviakoff applied forceps in 19.7 per cent., and in addition there were four vaginal and one abdominal cesarean sections, three versions with extraction and one embryotomy. The more frequent perineal lacerations can be attributed to the greater number of obstetric operations, as has been shown in Democh's cases.

Fetzer has observed that women who bear their first child before the age of 20 rarely develop prolapse of the genital organs, the liability to such prolapse for primiparæ increasing slowly and evenly up to the 27th year. After that date the proportion rapidly increases with each year of the woman's age at the time of her first pregnancy. Maternal morbidity naturally follows rather closely on the frequency of operations.

Mental and physical exhaustion and post-partum psychoses are not infrequent. Post-partum hemorrhage occurred in 9 per cent. of Edgar's cases, but his maternal mortality was zero.

As to the children, there is a marked tendency for elderly primiparæ to produce more boys than girls. There is also more liability for stillbirth in this class of cases, Stinemann placing the figure at 14.2 per cent. and Hecker at 17.6 per cent. This high percentage may also be accounted for by the increased number of operative deliveries. However, the increasing skill in obstetric surgery gives promise of a marked diminution in both fetal morbidity and mortality. Edgar had no fetal mortality in his forty-seven cases and Courgenon had less than 4 per cent. in 111 cases.

From what has been said above it is obvious that many of our opinions concerning the dangers of childbirth in elderly primiparæ must be modified, for only one positive fact has been elicited, viz., the preponderance of twins in the elderly. Protracted labor can no longer be considered typical or regular, and rigidity of the cervix and perineum are decidedly questionable. It would seem from the above study that obstetric operations are more common in the elderly, but with the improvement in obstetric technic, both maternal and fetal morbidity and mortality are brought to a point where they differ little from the younger primiparæ.

As to prophylaxis, we should perhaps bear in mind the tendency to increasing feebleness of the uterus in the final weeks of pregnancy, the more rapid growth in size and hardness of the child's head in the latter weeks of gestation, and the more frequent occurrence of vicious presentations due to disproportion between head and pelvis — keeping in mind all these points, the author believes the induction of premature labor at about the thirty-sixth week to be the logical indication. Certainly such is the case in those cases shown by pelvimetry to have reduced pelvic measurements, and by physical examination a large child and possibly features producing weakness of the uterine musculature such as fibroids. Dr. Spain prefers the use of a Vorhees or Champetier des Ribes bag with a light weight attached to induce labor because it not only produces contractions but at the same time eliminates the cervix.

More recent reports from abroad seem to indicate a decided virtue in the extract of the pituitary gland as a means of producing and keeping up strong and regular uterine contractions.

THE MANAGEMENT OF SQUINT IN CHILDREN

It is surprising how many general practitioners not only fail to recognize the importance of the early treatment of squint in children but even show their lack of knowledge of what is necessary for the successful management of these cases by advising the parents that children will outgrow squint, or that if attention is required it should be given when the patient is older. Parents can scarcely be blamed for neglecting this important subject when they receive such pernicious advice from the family physician.

In commenting on this subject in the February number of the *American Journal of Diseases of Children*, Dr. C. W. LeFever makes a statement which deserves wide publicity among parents of children, and among not a few general practitioners who seem to be possessed of false notions concerning the importance of giving squint early and appropriate attention. He says: "It is of the greatest importance that those who preside over the physical destinies of children should understand that squint in children is curable. By squint I mean the common form of concomitant convergent strabismus, or 'cross-eyes.' There are other forms of squint occurring in children which are not curable except through operative measures, but they are comparatively rare."

Emphasis should be placed on the fact that ordinary squint is cured by non-operative measures, but the general physician and parents must understand that the cure depends on the *early* institution of the proper measures and their implicit observance.

As pointed out by Dr. LeFever, from whose article we shall quote liberally, the responsibility for allowing children to become adults with eyes crossed and loss of function in one eye, an eye otherwise normal, must be shared by three persons:

First, the parents. Many parents have a false pride which leads them into the error that it is more of a stigma to the child to wear glasses than it is to grow up with eyes crossed. Some mothers are too much occupied to possibly give the child such attention as is necessary to carry out the treatment properly. Some parents are too poor to afford the glasses and the necessary repairs. Then there are some too careless or too stupid to do their duty by their offspring.

Second, the general practitioner. Nearly every child is taken to a physician for advice when the squint first becomes manifest. Then it is that great stress should be laid on prompt action, and the significance of both treatment and neglect should be made clear to the parents. It is not enough to tell the parents that the child should be taken to an oculist. They must be told when and where the oculist can be found, and must be made to understand that an optician, by whatever name he may call himself, is not the proper person. Then, to the shame of the medical profession, there are still a few physicians who tell the parents not to be alarmed, that children often "outgrow" squint and that if they do not "it can be straightened when the child is old enough." The family physician is most certain to know of a squint whether he is consulted concerning it or not, and it is his business to make inquiries as to what is being done, if anything, for its cure. Many well-meaning parents do not know the difference between an optician and an oculist and may allow the years during which the child might be cured to elapse by placing the child in the wrong hands.

Third, the oculist. Once the child reaches the oculist the responsibility rests with him, not only for the management of the squint, but that of the child and its parents as well. If the child is brought very young to the oculist, say at one year of age, he should congratulate both himself and the parents, and not tell the parents to bring the child back "when it is old enough to glass." This was formerly a common practice among oculists, and is unfortunately still the custom with some.

Dr. LeFever states that he believes 100 per cent. of cures are possible in the class of cases referred to, under the most favorable management, if the children are seen early enough. It is of importance that every physician should know about the amblyopia; should know that nearly all of these children lose useful vision in one eye and that the restoration of its function is possible, and a necessary part of the treatment.

Treatment is considered under five heads:

1. Correction of the hyperopia removes the chief cause of the squint, and is therefore of prime importance. Instances are very rare in which the eyes become permanently crossed in a child too young to wear glasses if it can have proper supervision. Young children take to glasses as they do to shoes or other wearing apparel, and give litle trouble after the first week. The determination of what glasses to order for the child is overcome by retinoscopy which enables the oculist to determine the kind and amount of error of refraction.

2. Atropin may be used to suppress the accommodation and render third nerve stimulus of no avail in helping the visual acuity, and the patient will soon cease the effort, incidentally ceasing to overstimulate convergence. This method, once much employed, should only be used when glasses are out of the question, and until such a time as the child may be given glasses. It must be used in both eyes two or three times daily.

3. Cure of the amblyopia is essential if single binocular vision is ever to be established. Amblyopia is a form of partial blindness of cerebral location. It comes about as a result of suppression of the image stimulus in one eye in an effort to be free from diplopia. All these little patients doubtless see double at first, but are too young to explain the diplopia or even to know that it is unusual. As they learn that one object is false, and it perhaps leads them to make mistakes in taking hold of objects, they begin to ignore the dimmer one, and one is always dim because focused on the peripheral retina where acuity is low. This suppression soon becomes permanent, and some effort is required to give the child diplopia even with a small light and colored glass.

The degree of amblyopia depends somewhat on the duration of the squint. Its cure depends on the forced use of the squinting eye by occlusion of the good eye. Occlusion may be accomplished by a bandage worn permanently for six weeks to two years, but since this is objectionable, a better plan is to have a highly concave neutral frosted lens fitted closely over the good eye while the proper correction is worn on the amblyopic eye. It must be worn constantly. This is not difficult to attain in very young children, say under the age of 5 years, but requires close watching for a month or so in the older ones. It is sometimes necessary to use atropin in the covered eye as an aid to prevent peeping around the glass. The method is nearly always successful in patients seen before they are too old. It is difficult of application after the seventh or eighth year. The cover should not be removed until the visual acuity is 20/30 or better. Both eyes are then glassed with the proper correction.

4. The fusion sense must be reestablished. If it were not originally at fault it becomes eliminated, and binocular single vision is impossible without it. In many cases it requires no treatment, resuming its function when the images can be fused. When the squint is of long standing, fusion may not be resumed without encouragement. For this purpose there are several instruments, all based on the principle of stereoscopic vision. Companion pictures are used and are either moved until they fuse, or prism aid is given until fusion takes place while the child watches the pictures. The child is thus encouraged to see the same object with both eyes at the same time without diplopia; i. e., single binocular vision is reestablished.

5. Operative measures are to be used only as a last resort, and will very rarely be necessary if the child is properly managed from the incipiency of the squint. In patients not seen early or not properly managed it becomes necessary to "straighten" the eyes in a mechanical way. This is done by shortening the external rectus, one or both, and tenotomizing the internus. The former is to be preferred to the latter, and in any case the full correction is to be avoided, as the future tendency is outward and a divergent squint may result in adult life. The operation should not "straighten" but aid other measures to do so. No patient should be operated on until the correction has been worn at least one or two years.

EDITORIAL NOTES

The acquittal of the meat packers was immediately followed by a sharp rise in the price of meats. The acquittal of a "chiropractic" doctor who was prosecuted for practicing medicine in Indiana without a license has resulted not only in an influx of chiropractitioners to the state of Indiana (which seems to be a haven of refuge for quacks and medical pretenders), but in the establishment of a chiropractic college at Fort Wayne. Certainly the defeat of justice works its hardship on the people.

The St. Joseph County (Ind.) Medical Society has adopted the plan pursued by quite a large number of influential medical societies throughout the country in publishing a monthly bulletin which will not only announce the time and place of regular meetings of the society and give the program, but will also contain numerous news items and personals of interest to the members. The publication of a bulletin may seem an expensive luxury, but it pays for itself in stimulating interest in the society and keeping the members in better touch with each other.

Considering that nearly all of the pseudo-medical cults are permitted to have representation in the state of Indiana without let or hindrance, we are wondering why the members of the regular medical profession should have interested themselves in the enactment of a medical law for the protection of the people and the elevation of the standard of medical practice. If it is fair to let all of the quacks and medical pretenders practice medicine without license, why isn't it equally fair to let members of the regular medical profession do likewise? As we said in the March number of The Journal, what is most needed in Indiana to-day is a little law enforcement.

When we hear and read that trickery, incompetency and politics are responsible for the present bad reputation and inefficiency of the Illinois State Board of Health we feel like offering thanks for the good fortune which the people of Indiana enjoy in having a state board of health that not only takes the front rank from the standpoint of efficiency and progressiveness, but is and always has been free from that pernicious political activity and trickery which sacrifices all other interests to political preferment or pecuniary gain. It would be a fortunate thing for Illinois if the secretary of that state's board of health could be retired to private life, and the *Illinois Medical Journal* and the better element in the Illinois State Medical Association deserve encouragement in the effort to have a house-cleaning in the Illinois State Board of Health.

The public is to be congratulated on being the beneficiary of the generosity of Dr. Robert W. Long of Indianapolis, who has not only donated a large sum of money for the erection of a hospital to be used in connection with the Medical Department of Indiana University, but has recently stated that he will build and equip a dispensary for the city of Indianapolis. The Indianapolis board of health has already entered into a contract with the Indiana University School of Medicine to pay the University $12,000 a year, and the University agrees to superintend and furnish the city dispensary for that period. Indirectly, the medical profession will be benefited by this enterprise, and the Medical School, which has long needed adequate clinical facilities, will profit thereby.

The program for the next session of the Indiana State Medical Association is now being prepared by the Scientific Committee. It is the intention of the committee to make the scientific work of the next session as practical as possible and to that end an effort will be made to have a number of demonstrations, some of which will be in the nature of clinics. It is also expected that a suitable number of papers on practical subjects will be offered by members of the Association. The program will be limited to only such number of papers as can be satisfactorily read and discussed in the time allotted for the scientific programs. Members of the Association who desire to present papers are asked to correspond with the committee, of which Dr. J. R. Eastman of Indianapolis is chairman, and to whom correspondence should be addressed.

Secretary Combs reports a substantial increase in the number of those who have paid dues for 1912, and he also gives us the very gratifying report that we have quite a large number of new members who have not heretofore been affiliated with the Association; but he expresses his disappointment over the inactivity of county medical society secretaries, and the apathy and indifference of some of last year's members of the Association concerning the payment of dues for the current year. It is understood that the dues will eventually be paid, but doctors should be ashamed of the reputation they have for negligence in the payment of obligations which must be met in order to hold the highest professional standing, and which should be met promptly in the interests of themselves as well as the organization in which they desire to retain membership.

The Very Reverend Walter Taylor Sumner Dean of the Protestant Episcopal Cathedral of Saints Peter and Paul, Chicago, who was the head of the Chicago Vice Commission, has announced that hereafter no marriage will be performed by any of the clergymen attached to the parish until the contracting parties have obtained a "clean

bill of health," signed by a reputable physician, to the effect that they are normal physically and mentally and have neither an incurable nor a communicable disease.

This certainly is a step in the right direction and the plan should meet with the approval of clergymen generally. There is no reason why the church should not do its part in protecting the innocent and clean from the guilty and diseased, and preventing the perpetuation of physical and mental ills through inheritance.

The superintendent of the Methodist Episcopal Hospital, of Indianapolis, has tendered his resignation, to take effect May 1, and has accepted a similar position in one of the leading hospitals in Des Moines, Iowa. A committee has been appointed to select a new superintendent, the membership of which is as follows: Hon. Charles W. Fairbanks, Joshua Stanfelt, W. C. Van Arsdel, Dr. Henry Jameson, Dr. J. F. Barnhill and Dr. A. C. Kimberlin.

The Methodist Episcopal Hospital is a thoroughly modern institution, being fireproof throughout, and equipped with all of the facilities recognized as necessary in present-day hospital management. It represents an investment of over $400,000. A new ward, thoroughly equipped as a children's department, will soon be opened. One hundred and twenty-five thousand dollars has already been pledged for the erection of a third wing which is to be begun this year.

The committee is desirous of securing a competent medical superintendent who is amply fitted for the position by experience and business ability. Only a high-class medical man will be chosen, but it is hoped that the committee will not be obliged to go outside of the state to secure a man who can satisfactorily fill the position.

Gov. Thomas R. Marshall delivered an address before the Y. M. C. A. of Washington, D. C., early this month, in which he stated that his reason for forsaking the practice of law in order to enter politics was to preserve his self respect. He is quoted as saying: "I wanted to get into a profession where my conscience could be given breathing room and where I would not have to wink one eye at the truth." He further said that he deplored decadence in the practice of the professions of law, medicine and theology.

We have known that there are now more rascals among lawyers and doctors than there were a few years ago, and we have also known that there are a few rascals belonging to the profession of theology, but we have never quite believed that a man could better himself by leaving any one of these three professions and going into politics. There certainly are a few honest men in politics, but the percentage is small. The average politician is not to be trusted any further than you can throw a dog by the tail, and generally speaking he is willing to make any kind of sacrifice, even of self respect and common honesty, if it will result in political preferment. Perhaps when the governor gets through with the "double-crossing" which some of his erstwhile political friends are giving him in the presidential canvass, his opinion concerning the honesty of politics will have changed.

An enterprising Chicago firm is at present collecting material for a book which it is reported is to be similar to the book known as "Who's Who." The very smooth representative who secures the autobiographical material for the book assures every person who is interviewed that no obligation is attached to the giving of information, and that the publication of the book is wholly independent of advance orders for it. It is not long, however, before the one who furnishes information about himself is asked to subscribe for the book, at a fancy price, and in some instances it is even intimated that a subscription was given at the time the autobiographical data were obtained. If the intended victim is not easily duped he escapes with the final reminder that if he does not subscribe his name will not be mentioned in the book. In other words, it is a question of pay to get in, and no matter who you are you get in if you pay and you stay out if you do not pay. It reminds us of the book published a few years ago in which it was supposed that all prominent medical men would be mentioned and their records published. It turned out that the really great men in the medical profession did not permit themselves to be exploited, and in consequence they were not mentioned in the book. On the other hand, some of the most notorious of medical quacks had no difficulty in securing recognition, and the supposition is that they paid handsomely for it and could afford to do so for it enabled them for once to get into good company.

Before permitting a physician or layman to appear before a medical society as a volunteer or invited guest to deliver a paper or address it is good policy to look up the pedigree and professional standing of the person who is to be granted this distinguished honor. One of our Indiana county medical societies has just had an experience which it seems to us is neither profitable

nor in good taste, and as it probably came about unwittingly censure should be reserved, though the experience is not without its lesson from which others may profit. A rather conspicuous advocate of a branch of medical practice allied to osteopathy, who has received more or less advertising in both direct and indirect ways, and who is not a member of any regular medical society, appeared before one of the Indiana county medical societies in a lecture or address abounding in specious arguments in favor of his peculiar form of medical practice, and with numerous criticisms and misrepresentations concerning the etiology, pathology and treatment of disease as taught by regular practitioners.

Rational criticism is worthy of the consideration of any medical society, but when it comes to the toleration of misrepresentation and falsehoods concerning known and demonstrable facts, we believe that it is eminently proper for us to refuse to tolerate such from those outside of the profession, and particularly from those received as our guests. It is too palpably a question, with the impolitic guest, of an "axe to grind," and, as we stated in the beginning, it would be well for medical societies to investigate pedigree and standing before extending invitations, or permitting volunteers to appear before our organizations.

As The Journal has predicted several times, Dr. H. W. Wiley has at last been forced to resign his position. When we say that he was *forced* to resign, we do not mean that his resignation was demanded, much as it has been desired by those who have been associated with him. But conditions became so intolerable that Dr. Wiley felt that his usefulness was at an end, and that he could be of more service to the cause he represented by retiring to private life and waging an unofficial campaign against the interests which have not only sought to make the Pure Food and Drugs law ineffective, but have also sought to secure Dr. Wiley's dismissal. Dr. Wiley admits that he tenders his resignation because of the hostile attitude toward him in the Department of Agriculture, and indirectly because of the villification and abuse which he has suffered at the hands of his enemies and which received no rebuke from those who should have been his defenders.

Concerning the attitude of the Department of Agriculture Dr. Wiley says: "For nearly six years I have been conscious of an official environment which has been essentially inhospitable. I saw the fundamental principles of the Food and Drugs Act, as they appeared to me, one by one paralyzed or discredited. It was the plain provision of the act and was fully understood at the time of enactment, as stated in the law itself, that the Bureau of Chemistry was to examine all samples of suspected foods and drugs to determine whether they were adulterated or misbranded and that if this examination disclosed such facts, the matter was to be referred to the courts for decision. Interest after interest, engaged in what the Bureau of Chemistry found to be the manufacture of misbranded or adulterated foods and drugs, made an appeal to escape appearing in court to defend their practices. Various methods were employed to secure this end, many of which were successful. One by one I found that the activities pertaining to the Bureau of Chemistry were restricted and various forms of manipulated food products were withdrawn from its considerations and referred either to other bodies not contemplated by the law or directly relieved from further control."

To those who are acquainted with all of the facts in the case, it is known that Secretary Wilson is solely responsible for all of the methods and measures employed to prevent Dr. Wiley from doing his full duty to his position and to the laws he tried to enforce. It is quite true that President Taft refused to dismiss Dr. Wiley at the request of Secretary Wilson and others in the Department of Agriculture, and the investigation of the charges that were preferred resulted in a complete vindication of Dr. Wiley. But if President Taft had shown some desire to do other than play politics he would have asked for the resignation of Secretary Wilson, and he certainly would have discharged F. L. Dunlap and Solicitor McCabe without ceremony.

President Taft has announced that he has asked twenty of the leading universities to propose names of those whom they think will fill the position formerly occupied by Dr. Wiley, but we predict that when it comes down to the real appointment the "interests" will control the appointment, and Dr. Wiley's successor will be a man who will be quite willing to whitewash all violations of the Pure Food and Drugs Law. We sincerely hope that we are mistaken in this conclusion, but judging from President Taft's spineless action in permitting the disturbers and the tools of the "interests" to remain in office when there was a public demand for their dismissal, we feel safe in concluding that nothing short of a general public demand for the appointment of someone who will be Dr. Wiley's equal in ability and independence of action will result in accomplishing anything in the way of enforcing the Pure Food and Drugs Act.

THE TRUTH ABOUT MEDICINES

This department presents, in concise form, facts about the composition, quality and value of medicines. Under "Reliable Medicines" appear brief descriptions of the articles found eligible by the A. M. A. Council on Pharmacy and Chemistry for inclusion with "New and Nonofficial Remedies." Under "Reform in Medicines" appear matters, tending toward honesty in medicines and rational therapeutics, particularly the reports of the A. M. A. Council on Pharmacy and Chemistry and of the Chemical Laboratory.

The text on which these abstracts are based may be obtained from the American Medical Association, 535 Dearborn Avenue, Chicago.

RELIABLE MEDICINES

Articles found eligible by the Council on Pharmacy and Chemistry for inclusion with "New and Nonofficial Remedies."

Atophan is 2-phenyl-quinolin-4-carboxylic acid, $C_3H_3N.C_6H_5.COOH.2:4$. The substance was first described by Doebner and Giesecke in 1887. Its therapeutic action was described by Nicolaier and Dohrn in 1908. It is insoluble in water but readily soluble in alkalies and has a slightly bitter taste.

It is said to be useful in gout, particularly in the acute attacks, acting more promptly than colchicum and without undesirable by-effects. In gout the dose is from 0.5 gm. (7½ grains) four times a day to 1 gm. (15 grains) three times a day, suspended in large quantities of water. To prevent the precipitation of free uric acid from the urine sodium bicarbonate may be administered simultaneously. In articular rheumatism daily doses of 3 to 5 gm. (45 to 75 grains) are prescribed.

Atophan is also marketed in the form of tablets, each tablet containing 0.5 gm. (7½ grains). Schering & Glatz, N. Y. (*Jour. A. M. A.*, March 2, 1912, p. 633).

Cornutol is a biologically tested liquid extract of ergot. Dose, hypodermically, 0.65 to 2 c.c. (10 to 30 minims); by the mouth 0.65 to 4 c.c. (10 to 60 minims). The date of testing appears on each package. Cornutol is put up in 1 ounce vials and in ampules, each containing cornutol 2 c.c. (30 minims). H. K. Mulford Co., Philadelphia (*Jour. A. M. A.*, March 9, 1912, p. 701).

Digitol is a biologically and chemically standardized, fat-free tincture of digitalis, corresponding in drug strength to tincture of digitalis, U.S.P. Dose, 0.3 to 1 c.c. (5 to 15 minims). The date of testing appears on each package. H. K. Mulford Co., Philadelphia (*Jour. A. M. A.*, March 9, 1912, p. 701).

Eucodin is methyl-codeine bromide, $C_{18}H_{21}O_3N(CH_3)Br$. It is easily soluble in water. It corresponds to 80 per cent. of codeine and to its own weight of codeine sulphate. It is said to be useful as a sedative as a substitute for codeine, especially in cough, where its action sometimes favors secretion. Dose, 0.06 gm. (1 grain).

Eucodin is also marketed in the form of tablets each tablet containing eucodin 0.05 gm. (5-6 grain). Riedel & Co., New York (*Jour. A. M. A.*, March 16, 1912, p. 780).

Euscopol is optically inactive scopolamine hydrobromide $C_{17}H_{21}O_4N.HBr$. It is easily soluble in water and alcohol. It closely resembles the official scopolamine hydrobromide in its physical, chemical and pharmacologic properties. It is claimed to have a milder action because of the absence of other alkaloids said to be contained in the natural scopolamine hydrobromide. Riedel & Co., New York (*Jour. A. M. A.*, March 16, 1912, p. 780).

Pharmaceutical Preparations of Accepted Articles

Tablets, Oxyntin with Pepsin, each containing Oxyntin .3 gm. (5 grains) and pepsin equivalent to pepsin, U.S.P., 1 grain.

Capsules, Oxyntin with Nux Vomica, each containing Oxyntin .3 gm. (5 grains) and Nux Vomica equivalent to tincture Nux Vomica 0.33 c.c. (5 minims).

Capsules of Holadin, Bile Salts and Phenolphthalein, each containing Holadin 0.13 gm. (2 grains), Bile Salts, Fairchild 0.03 gm. (½ grain), Phenolphthalein 0.065 gm. (1 grain).

Capsules of Holadin, Succinate of Soda and Bile Salts, each containing Holadin 0.20 gm. (3 grains), Sodium Succinate Exsiccated 0.20 gm. (3 grains) and Bile Salts, Fairchild 0.03 gm. (½ grain).

Capsules of Bile Salts, Succinate of Soda and Phenolphthalein, each containing Bile Salts, Fairchild 0.065 gm. (1 grain), Sodium Succinate, Exsiccated 0.20 gm. (3 grains), and Phenolphthalein 0.03 gm. (½ grain) (*Jour. A. M. A.*, March 16, 1912, p. 780).

REFORM IN MEDICINES

REFORM IN MEDICINE

"U. S. P. and N. F. Propaganda."—To further the intelligent and rational use of medicines, *The Journal of the American Medical Association*, with the assistance of the Council on Pharmacy and Chemistry, and of the Chemical Laboratory, has exposed the false claims made in regard to the composition and the action of many proprietary medicines. In so far as it promotes the use of preparations of known composition in place of those of unknown, uncertain or fraudulent character, the medical profession is indebted to pharmacy for the aid which has been given. The medical profession cannot, with good grace, criticise pharmacy for having chosen the path of least resistance when it attempted to wean physicians away from proprietary nostrums by encouraging the use of similar official preparations. There is danger, however, that the pharmacists' propaganda may mean only that the physician who previously used certain proprietaries uncritically will be led to use just as uncritically the official preparation. Let us hope, therefore, that those physicians who substitute official preparations for proprietary nostrums will do so with a full realization that they are still in their professional swaddling clothes and that they should make a serious effort toward individual, rational prescription-writing. (*Jour. A. M. A.*, March 2, 1912, p. 640.)

EZ-X-BA and Pellagracide.—Inquiries regarding certain nostrums sold as cures of pellagra were referred to Dr. Reid Hunt of the Hygienic Laboratory of the U. S. Public Health and Marine Hospital Service, which has for some time been conducting a study of pellagra. EZ-X-BA and Pellagracide are each supplied in the liquid and the tablet form. From the report of the analysis made in the Hygienic Laboratory it appears that the liquid forms of EZ-X-BA and Pellagracide consist essentially of an equeous, slightly acid solution of iron, aluminum, magnesium and calcium sulphates. EZ-X-BA and Pellagracide tablets appeared to consist of iron, aluminum, and magnesium sulphates mixed with starch and sugar. A similar preparation could be prepared at a nominal cost from the partially weathered iron-bearing minerals occurring abundantly in the south by digestion with dilute sulphuric acid (*Jour. A. M. A.*, March 2, 1912, p. 648).

Godfrey's Cordial.—Another baby has been killed with Godfrey's Cordial. Godfrey's Cordial appears in the National Formulary as a synonym for Mistura Sassafras et Opii and a teaspoonful (4 c.c.) contains about 0.12 c.c. (2 minims) of tincture of opium. The name "cordial" for such a dangerous mixture is deplorable, for the term gives the impression that the article

bearing it is not only harmless but beneficial. It should be omitted from the next issue of the National Formulary or its synonym changed (*Jour. A. M. A.*, March 2, 1912, p. 650).

Reliability of Digitalis and Ergot Preparations.—Recent investigations by Edmunds and Hale of digitalis and ergot preparations, claimed to have been standardized biologically, suggested that the manufacturers had not used the care and skill in making the product which the advertising claims would lead one to expect. One manufacturer, the H. K. Mulford Company, has met these serious charges and having instituted the reforms suggested by the examination has secured the acceptance of its preparations, Cornutol and Digitol, for inclusion with New and Nonofficial Remedies (*Jour. A. M. A.*, March 9, 1912, p. 705).

Squibb's Thoremedin (Thoradin).—This "cancer paste" claimed to depend for its activity on radio-active thorium is shown by analysis in the A. M. A. Chemical Laboratory to contain 35 per cent. of concentrated sulphuric acid. Dr. W. A. Pusey points out that the activity of the cancer paste depends on the generally discarded and discredited cauterant sulphuric acid and deplores the fact that the honored name of E. R. Squibb and Sons should have become connected with this preparation (*Jour. A. M. A.*, March 9, 1912, p. 719).

Sulphurro.—Sulphurro is put out by the C. M. C. Stewart Sulphur Company, Inc., Seattle, Washington. Examination in the A. M. A. Chemical Laboratory showed that it, like Sulphume and other "liquid sulphur" preparations, is a solution of calcium sulphide such as is obtained when sulphur, lime and water are boiled together. The foul smelling liquid is recommended to the public for the treatment of rheumatism, asthma, goiter, eczema, dyspepsia and all diseases of the stomach, bowels, kidneys, skin and blood. Its use as a rectal enema, a vaginal douche or as an eye wash is also recommended (*Jour. A. M. A.*, March 9, 1912, p. 719).

Definition of Non-Proprietary Mixtures.—To distinguish between mixtures that are not admitted to New and Nonofficial Remedies because they are non-proprietary and hence without the scope of the book from proprietaries that are not in the book because they are ineligible, the following definition of proprietary mixtures is given: "A mixture will be considered as proprietary, and therefore requiring consideration by the Council and admission to the book or appendix, if it contains any proprietary article, if it is marketed under a name which is in any way protected or if its manufacturer claims for it any unusual therapeutic qualities" (*Jour. A. M. A.*, March 9, 1912, p. 719).

Sterilization of Cocain Solutions.—Experiments have demonstrated that under ordinary conditions cocain solutions can be boiled without serious decomposition (*Jour. A. M. A.*, March 9, 1912, p. 721).

Marjorie Hamilton's Obesity Cure.—This is claimed to be a dietless and drugless system for the treatment of obesity. The advertising booklet sent out by Marjorie Hamilton, Denver, Colo., prescribes, however, a system of dieting and as a means of revenue to the promoter prescribes frequent baths with "Health-tone-Obesity Bath Powder," sold at $2.00 a pound, to be applied to "the fat parts or whole body twice daily." Marjorie Hamilton's bath powder was examined in the Chemical Laboratory of the American Medical Association and found to consist chiefly of sodium carbonate with smaller amounts of magnesium sulphate, potassium nitrate and possibly sodium sulphate (*Jour. A. M. A.*, March 16, 1912, p. 798).

Phenacetin and Acetphenetidin.—While at one time the product sold as phenacetin was protected by patent and the name trademarked now, that the patent has expired, the product as well as the name is non-proprietary. Although it is official in the pharmacopeia as acetphenetidin, physicians generally prescribe it by the formerly proprietary name phenacetin. As the product sold under the name phenacetin demands a price as much as five times that asked for acetphenetidin the A. M. A. Chemical Laboratory determined the purity of the market supply, of acetphenetidin and of phenacetin and found both equally pure. Inasmuch, therefore, as acetphenetidin complies with all the pharmacopeial requirements as to identty and purity, in just the same way as phenacetin, physicians need not hesitate in using the title of the U.S.P. "acetphenetidin" when prescribing this product (*Jour. A. M. A.*, March 16, 1912, p. 801).

Chinosol.—Although Chinosol is now recognized by the Council on Pharmacy and Chemistry and is described in New and Nonofficial Remedies, physicians, so the Chinosol Co. complains, are inclined to ignore the product, because at one time claims made for it were criticized in a report of the Council (*Jour. A. M. A.*, March 16, 1912, p. 804).

Tincture of Iron and the Teeth.—Preparations claiming to contain tincture of ferric chlorid in a form that will not affect the teeth are impossibilities. If such a preparation does not injure the teeth when given in ordinary dilution, it does not contain chlorid of iron. If, therefore, one desires to use the chlorid of iron for its local effects on the throat, the stomach or the intestines, it is necessary to give it through a tube or largely diluted (*Jour. A. M. A.*, March 16, 1912, p. 805).

Cresolene.—Cresolene, or Vapo-Cresolene, according to the A. M. A., Chemical Laboratory is essentially cresol and corresponds in every respect to cresol, U.S.P. (*Jour. A. M. A.*, March 16, 1912, p. 806).

Diabetic Foods.—While much has been written to show that gluten flours and gluten foods are unreliable and unsatisfactory as food for diabetics nevertheless a study of the markets shows that there must be a steady and even growing demand for these products. The entirely unsatisfactory "standard" established by the government is plainly responsible in great measure for the unfortunate situation that now exists. The United States standard for gluten flour calls for a protein content of only about 40 per cent., leaving the unfortunate possibility of having a preparation which is one-half starch marketed in conformity with legal requirements. Recent analyses of gluten preparations sold in Connecticut showed that most of them exceed the requirements of the standard; yet these foods, the products of the Pure Gluten Food Co., The Health Food Co., Johnson Educator Food Co., D. M. Welch & Son and the Battle Creek Sanatorium Food Co., contained from 27 to 68.85 per cent. starch. It is suggested that a statement of starch content, on the label of each product, be made compulsory (Rep. Conn. Agric., Exper. Sta., 1911, Part II, p. 134).

What's the Matter with Michigan?—"Professor Samuels," of eye water fame, finding things uncomfortable in Kansas announces his proposed removal to Michigan, a state where quacks are least liable to inspection on the part of officials. Michigan, it appears, has as many mail-order medical fakes of a vicious and fraudulent character as can be found in any other three states in the Union, irrespective of population and one wonders what peculiar influence protects swindlers in this state (*Jour. A. M. A.*, March 23, 1912, p. 863).

"Boost for Rexall."—The United Drug Company whose products are sold under the general trademarked name "Rexall" is a cooperative patent-medicine concern like the American Druggist Syndicate, "A. D. S.", composed of druggists who, not content with the profits derived from the sale of patent medicines, have engaged in their manufacture as well. Like other patent med-

icine manufacturers this concern, because of the more stringent state and federal laws governing the sale of "patent-medicines" in the United States has decided to extend its operations to England which is fast becoming the haven of patent-medicine promoters (*Jour. A. M. A.*, March 23, 1912, p. 876).

The gaudiest diploma doesn't always deserve the finest frame.

He laughs best who laughs silently, for then he can renig if necessary.

Dr. G. W. H. Kemper of Muncie sends us the following: "The patient mentioned in The Journal of January, who swallowed a fever thermometer and afterward passed it from the bowels, had a more happy termination of his trouble than the man who swallowed a thermometer and died by degrees!

Dr. M. Sunkmind of Spartinsville says his most interesting duty as city health officer consists in collecting samples of city hydrant water which he sends to the state laboratory. He has no idea what the reports mean, as they are very complicated, but he carefully preserves them in his records, believing them to add style to his office.

Watch closely the literature on salvarsan, that you may be able properly to know what you are talking about when you discuss this new remedy. Many doctors believe they are making a hit with the laity in being conservative and saying: "O! I'm not heavy for these new discoveries. I'll wait until those Germans experiment with it a few more years. Mercury and KI are good enough for me." Don't be always stepping on your own feet impeding your progress, but use the brains God in his excessive exuberance gave to you.

DEATHS

Dr. William G. Acton, a retired physician of Worthington, died at his home March 8.

Dr. G. O. Newton, for more than twenty years a physician of Dana, died at his home there March 10.

Dr. LeRoy G. Boyd of Tunnelton, Lafrence County, died March 13 following an operation for gall-stones.

Dr. E. D. Denison, for more than fifty years a practitioner in Knox County, died at his home in Carlisle, March 12, aged 86.

Mrs. Ridgeway, wife of Dr. W. B. Ridgeway of Vincennes, died at a hospital in Evansville, April 3, as the result of an operation. Mrs. Ridgeway was the daughter of Dr. Raab of Vincennes.

Dr. Barclay Ratliff of West Newton died at his home, March 25. He was born May 4, 1854; was educated in the common schools of Hendricks County, later graduating from Earlham College and Cornell University; graduated from Indiana Medical College in 1878, afterward taking a post-graduate course in the New York Polyclinic Hospital.

Dr. Stansbury W. Lemmon, Noble County's oldest physician, died at his home in Albion, March 22. Dr. Lemmon was born in New York, Sept. 18, 1829. He graduated from the Western Reserve Medical College at Cleveland, Ohio, in 1853, beginning the practice of medicine at Attica, Ohio, and continuing there until 1855. He came to Albion fifty-six years ago, and practiced medicine here until a few years ago. During the years 1871 and 1872 he took a special course at Rush Medical College, Chicago. Dr. Lemmon was a member of the Indiana State Medical Association and the American Medical Association.

Dr. W. H. Galbreth died at his home in Rockfield, March 12, after an illness of eight months from cancer. Dr. Galbreth was born in Cass County in 1866, graduating from the University of Louisville, Ky., in 1893. He was coroner of Carroll County two terms, 1896-1900, and was president of the Carroll County Medical Society in 1911.

The following resolutions were passed by the Carroll County Medical Society in his memory:

Since it has pleased our Heavenly Father to remove from among us an active member and worker of the Carroll County Medical Society, and we feel keenly the loss created by his untimely death, therefore be it

Resolved, That this Society has lost one of its most active members, one who has always been faithful to his profession, society, church, and family, and be it further

Resolved, That this Society extends our most sincere sympathy to the family of our deceased brother, Dr. W. H. Galbreth, who departed this life March 12, 1912, and be it further

Resolved, That these resolutions be spread on the records of this society and that a copy be sent to the family, and a copy sent to The Journal of the Indiana State Medical Association.

NEWS, NOTES AND COMMENTS

Dr. Carleton B. McCulloch, Indianapolis, sailed for Europe, March 23.

Dr. Robert Harris, South Bend, celebrated his 89th birthday anniversary March 14.

Dr. J. C. Watson, Tolleston, was struck by an automobile, March 15, and sustained severe bruises.

Dr. R. L. Sensenich, South Bend, has been elected president of the South Bend Public Welfare League.

The only leper in Indianapolis, an old colored woman, who has been under quarantine for several weeks, died March 18.

The Ward Sanatorium and the Sisters of Charity Hospital, Indianapolis, have been merged and will be under the control of Dr. Joseph H. Ward.

Dr. A. L. Wilson, 809-811 Odd Fellows Building, Indianapolis, desires an office associate. For particulars see Commercial Announcements, advertising section.

Dr. James A. Work, Elkhart, slipped and fell on the ice, March 13, suffering an impacted fracture of the upper end of the humerus, with a dislocation of the shoulder.

Drs. Roscoe L. Sensenich, R. C. Shanklin, C. C. Terry, Hugh M. Miller and W. H. Baker have incorporated the South Bend Medical Laboratory, with a capital stock of $3,000.

The Massachusetts Homeopathic Hospital, Boston, has recently opened a new building, the Robert Dawson Evans Memorial Building, to be devoted to clinical research and preventive medicine.

In the competitive contest for designs for the new hopsital for Indianapolis to cost $1,000,000 the plans of Mr. Adolph Scherer were accepted. At the present time $330,000 are available for the building. The board of health has decided to erect a nurses' home, with accommodation for 100 nurses.

The new wing of the Methodist Episcopal Hospital, Indianapolis, will, it is reported, be completed May 1, and will cost $150,000. One floor of the wing is to be devoted to the care of children, and one to obstetrics. There will be an emergency ward and also a roof garden for convalescent patients.

A recent examination of the teeth of school children in Indianapolis revealed the fact that 79.36 per cent. of all those examined had mouths in bad condition; 32.34 per cent. said they had tooth brushes; 27.52 per cent. had irregularities in their mouths; teeth out of position so that perfect chewing is impossible.

In the St. Vincent Hospital, Indianapolis, Governor Marshall has reserved for the Indiana University School of Medicine twenty free beds which are open for the poor of the state of Indiana. Each Friday afternoon between 2 and 5 o'clock is held a combined medical and surgical clinic at this hospital, conducted by the Dean of the Medical School and Dr. John H. Oliver, of the Surgical Staff.

Dr. Severance Burrage, one of the leading members of the faculty of Purdue University, has tendered his resignation to the president of the University, to take effect in June, when he will go to Indianapolis to enter a new field in scientific research for the Eli Lilly Company. It is announced that he will take charge of the company's biologic department and superintend the manufacture of serum. The first year of his service will be spent in studying hospital conditions in Europe.

A meeting under the auspices of the West Side Branch of the Chicago Medical Society and the Chicago Medical Society, will be held April 17, 18, 19, for the purpose of discussing mental diseases in their various phases. An alienist and neurologist from each of several states has been invited to participate in this meeting, which will be of interest alike to the general practitioner and the public.

Through the generosity of Prof. Orsen Archibald of the State School for the Deaf, Indianapolis, and a former resident of Lafayette, a state home for the aged and infirm deaf of Indiana will be established in White County, 12 miles north of Lafayette. Professor Archibald has given 80 acres of land for the home, the only condition imposed being that the sum of $10,000 be raised as a maintenance fund.

Since March 1, the following articles have been accepted for inclusion with New and Nonofficial Remedies:

Capsules of Holadin Succinate of Soda and Bile Salts (Fairchild Bros. & Foster).

Capsules of Bile Salts Succinate of Soda and Phenolphthalein (Fairchild Brothers & Foster).

Capsules of Holadin, Bile Salts and Phenolphthalein (Fairchild Bros. & Foster).

Euscopol (Riedel & Co.).

Eucodin (Riedel & Co.).

Iodo-Casein (H. K. Mulford Co.).

Iodo-Casein Tablets, 2½ gr. (H. K. Mulford Co.).

Iodo-Casein Tablets, 5 gr. (H. K. Mulford Co.).

Formicin (Kalle & Co.).

SOCIETY PROCEEDINGS

FORT WAYNE MEDICAL SOCIETY

Meeting of February 6

Society met in regular session in assembly room with 15 members present.

Clinical cases. Dr. Porter reported a case of cardiospasm. Condition relatively rare; 140 cases, all told, reported when "Keen's Surgery" was written. Typical case reported. Patient, farmer, aged 28, unmarried. Admitted to hospital Jan. 26, 1912. Family history unimportant. Never suffered severe illness prior to present one. Two years ago while husking corn he was taken, after sneezing, with a severe pain in pit of stomach; so severe that he had to lie down for a short time before resuming work. Has complained of trouble in swallowing for more than a year. Has less trouble with liquids than with solid foods. Frequently takes food that will not go down but produces sort of choking sensation with watering of eyes followed by a regurgitation of the food. The regurgitation is without nausea. Vomitus never sour or bitter; has never vomited large quantities at a time. Has lost 40 pounds in weight. Examination reveals man of medium size and fairly nourished. Conformation of chest indicates rachitis. Heart and lungs normal. During examination Dr. Porter learned that for six or eight years patient has been subject to attacks of sick headache, and that one of these attacks was on at the time of this examination, and in consequence was complaining of some nausea. Stomach tube introduced without difficulty revealed the fact that he still retained in his stomach some remnants of noon meal, which was taken some 5½ hours prior to introduction of tube. Given a bismuth emulsion and an *x*-ray picture taken, which revealed esophagus much dilated regularly throughout its entire extent from pharynx to cardia. Four days later patient returned to hospital and was again given bismuth emulsion and after waiting a few minutes to give some of the bismuth time to get into the stomach another *x*-ray picture was taken. These *x*-ray plates were passed around for inspection; first shows dilated esophagus; the second, the lower end of dilated esophagus and immediately below, separated by a small space, the outline of the stomach into which some of the bismuth has passed. A large flexible whalebone bougie passes cardia without difficulty. Swallows better after bougie is passed. Diagnosis being established, treatment was instituted at once, consisting of dilatation of cardiac opening of stomach to the point of production of paresis just as a spasmodic condition of sphincter ani is cured by divulsion.

Showed instrument with which dilatation was accomplished, consisting of an ordinary esophageal tube over lower end of which is fastened a silk bag covered with rubber, which bag is made to communicate with tube by cutting a few holes in lower end of tube. This is for the purpose of facilitating introduction of instrument. Instrument is introduced until middle of bag is grasped by cardiac orifice of stomach. Instrument then connected through means of rubber tubing with this pressure gauge which is in turn connected by another tube with water faucet. Connection between dilator and gauge through medium of a "Y" which has attached to it another rubber tube. This arrangement permits one to turn water on and assure himself that a moderate stream is flowing before turning water into the dilator. After everything is in readiness, and with one hand holding dilator firmly against teeth to prevent its either slipping upward or downward, the out-flow tube is compressed gradually between thumb and finger, when it will be noticed that the pressure is rising within the bulb. There might be some danger in compressing outflow tube too suddenly, but with care and attention to indicator as well as to patient's feeling there is no danger in the procedure. In this patient bulb was distended to a diameter of 1½ inches without producing material discomfort. This degree of distention of bag is produced when the gauge indicates a pressure of 7½ to 8 pounds. This treatment usually results in cure. In some cases one dilatation is sufficient, again it is necessary to repeat it from one to a dozen times. "This patient is to report to me again, and I shall be pleased to report to the society the final outcome of the case."

Dr. K. K. Wheelock reported case of a woman who came to his office within the past week with a letter to an optician of this city from a prominent practitioner of a neighboring town, with instructions to go over the eyes thoroughly. For some unknown reason she came to Dr. Wheelock's office instead of to the optician. On examination he found the vision greatly reduced. Six weeks before date of his examination, the patient was pregnant, had a convulsion and miscarried. Blindness came on following this abortion. The case was a clinical picture of albuminuric retinitis.

Opening the discussion, Dr. Havice said he has had a number of cases of this type which have been sent to opticians by prominent practitioners.

Dr. Miles Porter, Jr., read a paper on "The Hypophysis Cerebri."

Opening the discussion, Dr. C. G. Beall said that there are a few main facts in connection with lesions of the body of the gland which are known, i. e., gigantism and a deposition of fat, with the absence of sexual function. As in the case of the thyroid glands, we will have just as definite data to go on with further study of the pituitary gland. Attempts have been made by different staining to tell the difference of the cells of the hypophysis. Some belong to the chromatin and some to the achromatin variety. Different function is attributed to these different cells. Some of these cells (eosinophilic cells) develop with pregnancy, and always develop with it. The cells which are present in the development of acromegaly belong to the same group.

Dr. Wheelock said he has had some experience with this class of cases. Has had two cases, one acromegaly and one sarcoma of the pituitary body. In the sarcomatous case (15 years ago) the eyes were completely atrophic, with a good deal of pain which continued until death. Post-mortem showed sarcoma of the pituitary body. As to operation, the best method, in his judgment, is through the nasal cavity, after removal of the superior turbinates, which gives ample space for the operation. Thinks the combined assistance of special and general surgery should be had in these cases. Somewhere he has seen that cases of pituitary disease have been treated with radium.

Dr. Havice: In his opinion it would be hard to diagnose cases of this type. Any tumor in or near this location might produce the same eye symptoms, that is, such as gummata, exostosis, or tuberculous tumor. Thinks that the approach through the temporal region would be best for operation.

Dr. Porter said he had had no practical experience with diseases of the pituitary body. Knowledge is gained from reports alone. First became interested through study of the thyroid gland. It is possible that all ductless glands become involved at the same time, that is, some change when disease of the pituitary takes place. Studies of Cushing seem to indicate this. The theory that they are working on now is that either hypo- or hypersecretion exists. It is entirely possible that a physiologically normal gland may give rise to either a hypo- or a hypersecretion without necessarily being in a pathological condition. No result is obtained in cases of acromegaly by gland therapy. But some success has been obtained by surgical procedure. The best technic is through the nose. One objection is from an aseptic standpoint. You are operating through a septic field, so that this would be trivial.

Dr. McCaskey: Is very much interested in lesions in this location. Choked disk is a late manifestation. Primary optic atrophy occurs first. Where choked disk occurs from increased intracranial pressure the reverse is the usual condition. Division of the gland into two parts, one producing gigantism and acromegaly and the other sexual atrophy.

Dr. Glock: One thing which has not been mentioned is hypopituitarism resulting in dwarfism. The life is prolonged; where if hyperpituitarism takes place it results in gigantism. The life expectation is shortened. These cases usually die at about 30 years.

Dr. Wheelock said he had never, in operative work on the nose, had a septic infection following. He would make the operation in two steps. Clean out the nose and allow it to heal. It can be packed off. He regards the eye symptoms of extreme use in diagnosis. The primary condition is an optic atrophy, and the choked disk occurs later.

Dr. Havice said that a nose operation might be done in an aseptic manner; but how is the dust, etc., to be kept from the wound, and producing a septic condition?

Dr. Porter, Jr., closing: There is no truer fact than that the gland is associated with sexual development. Very frequently you get a mixture of hypo- and hyperpituitarism. The best operation is done in three steps through the nasal septum. Best diagnostic sign is an x-ray of this region. Almost any pathological condition could produce the same symptoms, but gumma and exostosis are very rare in this region. He assisted in removal of the gland in a dog. Kept him alive by injection of the gland substance.

Report of the Northern Tri-State Medical Association meeting read; motion carried report be accepted and committee discharged; committee to return balance of funds to Fort Wayne Medical Society treasurer.

Committee presented resolutions on the death of Dr. H. Van Sweringen, and motion carried that they be spread upon the minutes, a copy sent to the family, and published in the daily papers.

Dr. Wheelock believes the society should have portraits of the deceased members, and motion carried that permission be granted to have these pictures framed and hung in the assembly room, and that a committee of three be appointed to make a collection of procurable portraits of departed members of this society. President appointed Drs. Wheelock, McCaskey and Porter.

Application fee of Dr. Martz of $5 was returned to him.

Application of Dr. Wiley Trimler was read and referred to board of censors.

Adjourned. G. Van Sweringen, Secretary.

Meeting of February 13

Society met in regular session in the assembly room with 13 members present.

Clinical cases. Dr. B. Van Sweringen reported a case of arteriosclerosis with unusual sequelæ. Patient, man, aged 66, consulted Dr. Sweringen Nov. 17, 1910, for prostatectomy if thought advisable. Gave history of frequent urination in October, 1910, accompanied by some bleeding from the bladder. This subsided after a short time and he was quite comfortable until August, 1911, when he had a similar attack which again subsided after a week or ten days. At time

of his visit he was suffering from great frequency of urination, rising as much as every hour at night, and act was accompanied by considerable pain both during and after. Meatus showed a small ulcer, in all probability by excessive acidity of urine. Urinalysis showed sp. gr. 1025, marked albumin reaction, hyaline and granular casts. The 24-hour quantity was 42 and 45 ounces respectively on two different days. Urinalysis on the 26th showed absence of albumin and casts, and several examinations made at short intervals all proved negative. This change was brought about by correcting the excessive acidity by bicarbonate of sodium, which also stopped his dysuria and frequency and made him comfortable. Had no residual urine, but prostate through rectum seemed enlarged. Sounding also negative. Had one other similar attack while up north last summer which again responded to sodium. After this had no further trouble. Blood-pressure at first visit was 150 mm. Tycos. He gave no cardiovascular symptoms at that time, and the taking of the blood-pressure was only prompted by the full bounding radial and results of urinalysis. Heart sounds clear and strong.

Two months ago he suffered a burn of his left foot which was not unusually slow in healing. During care of this injury Dr. Sweringen had occasion to see him frequently, and he never made any complaint of any kind save of the foot.

On the 7th inst., Wednesday night, he was taken with severe pain in epigastrium, but did not waken family nor send for medical aid. In the morning he related the incident but refused to consult a physician. Had some slight sensation in epigastrium which he found it difficult to describe, between Wednesday and Friday night, when he had another severe attack, for which he consulted Dr. Sweringen, who on his arrival found patient sitting in a chair fully dressed and free from pain. Had not vomited nor had bowels been out of order in any way, yet there was a marked borborygmus present, and he acknowledged having indulged himself a little too freely at the table, so the attack was regarded as one of intestinal colic, but not being fully satisfied, Dr. Sweringen did not prescribe for him further than leaving some ¼-gr. morphin tablets in case the pain returned.

Patient arose next morning and went to his office as usual where he was taken with another severe attack of pain in epigastrium about 1:30 o'clock Saturday afternoon, and had difficulty in reaching his home by street car. Was seen immediately after and found cyanosed with cold extremities and a pulse-rate of not more than 45 when first seen. At that time he was free from pain, but felt a peculiar sensation in pit of stomach which was not a pain but seemed to be a notice, as he said, "that there might be a recurrence of it if he did not watch out." Heart sounds clear but slow. No murmurs or other adventitious sounds, and radial pulse seemed of fair tension, but whole aspect of case was that of angina pectoris even though the pain was not regular in distribution, and Dr. Sweringen made this diagnosis to the family and gave a grave prognosis with possibility of sudden death in any one of the attacks should they recur.

Patient kept his bed from Saturday afternoon at Dr Sweringen's request, but could not be persuaded against rising to go to bathroom and getting up to urinate. This he did at 2 o'clock on the 11th, and after emptying his bladder, lay down, passed at once into coma and expired in about 5 minutes without further complaint of pain.

Autopsy made five hours after death. Upon lifting sternum a rent was made in pericardium and presence of blood in that sac revealed. Further examination brought out the fact that the blood contained therein was clotted, and that pericardial sac was distended to such an extent that great pressure must have been exerted on heart, thus accounting for death. The heart itself presented a great excess of fat, so much so that little of the muscle could be seen. Over the middle of left ventricle could be seen two rather ragged tears which were subsequently demonstrated to communicate with interior of ventricle and were evidently the source of the pericardial hemorrhage. Substance of heart muscle was soft and could easily be pinched through. Coronaries would not admit small probe and were evidently thrombosed although they have not as yet been dissected out for fear of further mutilation of the specimen. Aorta showed many arteriosclerotic patches. Kidneys showed participation in the arteriosclerotic process. Cortex was narrowed and there were some small cysts in the parenchyma. One large mulberry calculus was found in urinary bladder, together with several smaller stones. Prostate was considerably enlarged, especially the lateral lobes, but the internal meatus was still the low point, thus accounting for absence of residual urine.

Opening the discussion, Dr. Porter said he was becoming impressed with the fact that several soundings of a bladder which contains a stone may be negative. Has failed to find stone upon sounding within the last week. X-ray showed that stone was present. The stone on removal was not covered with mucus and was not imbedded nor behind prostate.

In discussing Dr. Sweringen's case, Dr. Porter said that the case is extremely interesting. Two years ago while attending a district medical society meeting at Wapakoneta, Ohio, one of the members of that society exhibited several specimens demonstrating spontaneous rupture of heart in rabbits as a result of fright, or injury to other parts of body than heart. Does not recall the location of these ruptures, but thinks they were auricular. In looking up the subject in Gould and Pyle's "*Anomalies and Curiosities of Medicine*," for 1907, he found the following: "Amherst credits Gamgee with collecting 28 cases of rupture of the heart, including one of his own due to contusion of chest. In 9 cases there was no fracture and either no bruise of the parietes or a very slight one. Pericardium intact in half of the cases. Precise seat of lesion noted in 22 cases and found to be in right ventricle in 8, left in 3, left auricle in 7, right in 4. Longest period any patient survived was 14 hours. Johnson reports a spontaneous rupture of left ventricle during an epileptic seizure. Spontaneous rupture usually due to fatty degeneration or other cardiac degeneration. Wright reports case of spontaneous rupture in which death did not occur for 48 hours. Barth collected 24 cases of spontaneous rupture, all of which were in left ventricle. It was noted that in some of these cases the rupture did not take place at once but by repeated minor lacerations, death not ensuing in some instances for from 2 to 11 days after first manifestation of serious symptoms. Meyer collected since 1870 25 cases of rupture of left ventricle, 7 of right and 4 of right

auricle. Collings in 1896 reported a case of spontaneous rupture of heart in a temperate man of 53 whose only previous trouble was 'weak heart and dyspepsia.' The man's father had died suddenly of heart disease. After feeling out of sorts for a time, man experienced severe pain in precordium and felt too ill to leave bed. Gradually became worse and sick after taking food. Speech became thick, mouth was drawn to right, the right eye partically closed. Left arm became paralyzed, then right leg. Tongue deviated to right on protrusion. Sphincters unaffected. Heart sounds faint and without added sounds. Man moved to a water-bed, his body and head being kept horizontal, and great care being taken to avoid sudden movement. Later when pelvis was raised to allow introduction of bedpan, almost instantaneous death ensued. Upon post-mortem examination prolonged and careful search failed to reveal any microscopic changes in brain, its vessels, or the meninges. On opening pericardium it was found to be filled with blood-clots, and on washing this away a laceration about 1½ inches in length was found in left ventricle; aperture closed by recent clot. Cavities of heart dilated, walls thin and in advanced stage of fatty degeneration. No valvular disease. Aorta and its main branches were atheromatous. Both lungs contained calcifying tubercle; abdomen was loaded with fat; spleen was soft; kidneys engorged, but otherwise healthy."

Dr. Porter, Jr.: In a report of 100 cases by Quain, several were marked by fatty deposit and fatty degeneration. Rupture more frequent in region of interventricular septum. Judging from the attacks of angina and the freedom between them, and from the extravasation of blood around inside and not on outside, rupture must have occurred just prior to death.

Dr. B. Van Sweringen: This was only an incident in the course of his arteriosclerosis. Should be reported as an unusual accident.

Dr. Wheelock reported case of woman, married, aged 43, who consulted him first in 1905 for dimness of vision, halos around lights, and pressure through forehead, with pain on top of head. Vision at first about ⅓, but brought up to normal after two or three weeks' active treatment. Continued good until late in the same year when vision dropped to 1/5 without glasses; could be brought up to normal. General diagnosis of disturbance of vasomoter nervous system with threatened glaucoma. The next summer, following a violent bump of head above left eye, sight in this eye became dim. Examination showed eyeball stony hard; cornea hazy; tension +3. Light perception. Iridectomy done, with an improvement of vision to 15/30 with correction. Results of iridectomy on right eye done in October, 1911, not so gratifying. Hemorrhage into anterior chamber 48 hours after operation; at that time blood-pressure of 160. Vision four months after operation, January, 1912, 15/70. Two surprises in this case; one when a practically lost and worthless eye was restored to useful vision, and second, when a practically perfect eye with threatened attack of glaucoma was operated under favorable conditions, and went to the bad through conditions over which no one had control. Many of these cases occur about the menopause, and it is possible that the thyroid secretion may have some influence upon the precipitation of the trouble through a disturbed vasomotor nervous system.

Dr. Rodgers read a paper on "Enteroptosis."

Opening discussion, Dr. L. T. Rawles said he thinks all women with neurasthenia should be examined for signs of visceroptosis. Believes that best treatment, especially that which has given him best results, is by strapping, laxatives, and the high starch diet.

Dr. B. Van Sweringen: Has had no experience in operations looking to support of liver, and does not believe liver can be held up with much success. Stomach. Had had one experience with Coffey's operation with success. Nephropexy is common and results are varied. As far as the kidney condition is concerned in these cases, of course it is relieved by operation, but the usually accompanying neurasthenia is not benefited. Ptosis of colon. Saw three cases operated by Dr. John J. Clark, of Philadelphia. X-ray plates were made of these cases after ingestion of bismuth gruel. Almost all of the colon was in the pelvis. Patients were practically invalids. Operation consisted in an anastomosis between ileum and sigmoid and extirpation of ascending colon. Operation relieved these patients.

Dr. Porter: Surgery has done much in the way of elucidating some of the problems in abdominal pathology. Among other things we have been shown that abdominal ptosis, like the mantle of charity, covers a multitude of sins. Coffey and others have shown that extreme ptosis of stomach, colon or both is entirely compatible with perfect health; that a colon or stomach that is down today may be in normal position tomorrow; that, in short, a wide range of motion and frequent change of position of these viscera is common and perhaps normal. Surgery has acquainted us through the work of Mayo and others with the anomalous conditions due to lack of normal rotation. Quoted Gerster, of New York, as holding the opinion that Lane's kink, Jackson's veil and other intestinal bands frequently found are the result of a perienteric irritation arising from an infection within the gut. Gerster has pointed out that many cases fail to recover entirely after an appendectomy for chronic appendicitis. They continue to suffer from pain and colic in right iliac fossa accompanied at times by the formation of a tumor which with the subsidence of the pain disappears. Opening the abdomen of these patients shows the cause of the periodic attacks to be a pericolic membrane preventing free passage of gas and feces through colon. Division of these bands necessary to patient's recovery, but this is not all, as Gerster emphasizes. After these patients have their appendices removed and their pericolic bands divided they still require a cure of their colitis before they are restored to perfect and permanent health. Believes that in case reported by Dr. Rodgers there is a chronic colitis resulting in a pericolic veil or band near cecum and that case requires not treatment for ptosis but division of this veil and perhaps removal of appendix, and lastly, and perhaps most essential of all, effective treatment for her colitis.

Dr. Wallace said he recalled a case in which a woman had Dietle's crisis. Several attacks in rapid succession. The Mayo fat-splitting operation was done 5 years ago; successful. Thinks most relief comes through thorough catharsis.

Dr. Weaver said nitrite poisoning by use of bismuth subnitrite in gastro-intestinal skiagraphy can be avoided by use of subcarbonate of bismuth.

Dr. Rodgers, closing: Dr. Porter's statement throws some light on case I reported. There were at times some evidences of inflammatory symptoms. I took it for a neurotic condition because it cleared up.

Adjourned. G. Van Sweringen, Secretary.

Meeting of February 20

Society met in regular session in assembly room with 14 members present.

Clinical cases. Dr. Morgan reported case of adult female who had severe bleeding from gums and fauces. A week before bleeding came on had an ordinary tonsillitis. Presents case history for diagnosis.

In discussing case, Dr. Wheelock said: In regard to extravasations into throat and conjunctiva, does not think this a symptom of much importance. In one case of erythema nodosum hemorrhage very marked in these localities. This symptom sometimes occurs in pregnancy.

Dr. Porter: Most of these rheumatic individuals are subject to tonsillitis. This looks like a purpura rheumatica. These cases undoubtedly blood infections.

Dr. B. Van Sweringen called attention to case of supposed appendicitis, brought in in the night for immediate operation. Patient child, 3 years old. Had otitis media and a ruptured ear drum. Began to complain of abdominal tenderness. History made him cautious. By distracting child's attention no mass was found. Operation postponed. The interesting point is the localization of symptoms in this region without any pathological condition being present.

Dr. Porter, in discussion, reported a case with general history similar to this one of Dr. Sweringen's, which died of general peritonitis. Whenever you have tenderness on pressure which remains, you have an inflammatory lesion present. The so-called peritonisms of pneumonia and other infectious diseases are really infections which we will learn to recognize after we become more familiar with these conditions.

Dr. Morgan emphasized importance of examination of chest in a child with symptoms of appendicitis. Some pneumonias give these symptoms.

Dr. B. Van Sweringen, closing: Said he recognizes the fact that there is a pathological condition present in the appendix of some of these cases of so-called peritonism. Spoke of a case in which a discussion took place over this point, in which the temperature dropped suddenly, and the next day the child developed measles.

Dr. Porter reported two cases. Case 1: Diverticulitis, with perforation, acute peritonitis and death. Patient, middle-aged male; family and previous personal history unimportant. Gave history of some constipation. Case brought to hospital by Dr. Metts with diagnosis of acute diffuse peritonitis with pus. Diagnosis confirmed by examination. Belly opened with impression that origin of trouble would be found in appendix, though local signs did not point to right lower quadrant of abdomen. On account of patient's poor condition operation consisted in simple opening of abdomen and draining of the cavity. Patient continued to grow worse and died within a few hours. Dr. Porter exhibited specimen obtained at post-mortem, which was a typical specimen of diverticulitis with a small perforation of one of the diverticula. It was this perforation, of course, which permitted the acute infection of the peritoneum.

Case 2: Acute diffuse peritonitis resulting from acute enteritis without perforation. Patient, girl, 10 years of age; previous history unimportant. Brought to Dr. Porter with diagnosis of obstruction of bowels 36 hours after onset of trouble. First complained of chill, followed by abdominal pain and vomiting, tenderness and rigidity over whole abdomen. Later on, attending physician thought he could feel an indistinct mass in lower right quadrant. Within 24 hours of onset, symptoms, including temperature, subsided except vomiting which continued. Presented typical picture of acute diffuse peritonitis of severe grade. Operation revealed large quantity of free pus in peritoneal cavity. Hasty examination failed to reveal probable source of infection unless it could be attributed to appendix, the peritoneal coat of which was but slightly injected and the organ perhaps slightly more firm than normal. Mesenteric glands universally enlarged. Appendix removed. For few hours conditions improved; then did not do so well.

Dr. Porter presented appendix for examination; marked congestion and some swelling in mucosa. Case would seem to be an acute septicemia originating perhaps in mucosa of appendix and probably either streptococcus or staphylococcus in character, giving rise to acute diffuse peritonitis. Immediate effect of operation was that of relief of the peritonitis, but blood infection seems to be advancing.

Final report. The little patient continued to grow worse and died about 43 hours after onset of trouble. Post-mortem revealed, in addition to what was found in operation, nothing except rather congested condition of mucosa of ileum. Microscopic and bacteriologic examination showed no bacteremia. Lymphatic glands and mucosa of intestine and appendix showed an acute staphylococcic infection of ileum and commencement of large intestine, including appendix, from which source of infection there was also developed a fatal toxemia resulting in death before bacteria found their way into blood stream; peritoneal infection occurring without any macrosopic effect in intestinal coats. Patient improved immediately after operation because peritoneal infection was relieved; death caused by general infection.

Dr. D. D. Johnston, Kendallville, read a paper on "Diabetes."

Opening discussion, Dr. Rhamy said he thinks the main thing in the treatment of diabetes is diet. Careful examination of urine should be made from 24-hour specimen. Whenever you find acetone in the urine it is a severe case. Diacetic acid means oncoming coma. Bicarbonate of soda should be used until the urine becomes neutral. He made mention of two cases of diabetes in which he found diacetic acid but no acetone. This is an argument against the common opinion that acetone is derived from diacetic acid.

Dr. Wilking: In the treatment of diabetes it is well to avoid anything that disturbs the mental condition. Excitement increases the sugar in the urine.

Dr. Wheelock: The classification of Osler is best: Nervous, dietetic and pancreatic diabetes. Does not know just where the sugar comes from when starch is added to the diet. Best way to estimate it is to teach the patient to examine his owu urine so that the meal which produces tne sugar can be found. Best thing a diabetic can be given is Bulletin No. 28 of the United States Department of Agriculture, wherein food stuffs are analyzed. Great difference of opinion exists as to the amount of food necessary to keep up the body weight.

Dr. Porter, Jr.: Has had an opportunity to examine a case of glycosuria, in which sugar was discovered in the urine one day when close watch was kept of the urine. Next day it was absent. This patient can consume 250 grams of carbohydrate without producing sugar. If exceeded sugar appears. In cases of diabetes the sugar is found after the third meal in the day.

In the treatment of mild diabetics extreme caution should be used to increase their carbohydrate intake. Asked Dr. Rhamy if diacetic acid is ever present without sugar.

Dr. Rhamy said he had found diacetic acid without sugar, but no acetone.

Dr. Weaver: The soy bean is best form of vegetable to give in diabetes. Had opportunity to observe a case in which this food has been used for three years. The young man is 17 years of age, is gaining weight, and is sugar-free most of the time. When it comes to the point of carbohydrate starvation the sugar reappears. Small quantities of carbohydrates then make sugar disappear. Coma can often be avoided in this way.

Dr. Johnson, closing. Has had three cases under treatment; the man of 39 most severe. Gives these cases typewritten copies of diet and outline of living.

The resolution changing the by-laws so that six shall constitute a quorum instead of ten was read. Motion carried that the amendment be adopted.

Motion carried that secretary be instructed to convey to Dr. A. P. Buchman the heartfelt sympathy of this society in the death of his wife.

Adjourned. G. Van Sweringen, Secretary.

Meeting of February 27

Society met in regular session in assembly room with 14 members present.

Clinical cases. Dr. Duemling reported a case of gunshot wound of abdomen. Third case in his practice.

Dr. G. Van Sweringen made further report on case of pregnancy complicated by acute nephritis. Patient aged 22 years; 7 months pregnant; family and personal history negative. Examination two weeks previous revealed nothing of a pathological nature. One week after examination patient noticed slight edema of ankles and face; no other symptom except that she became easily exhausted. One week ago today (Tuesday) came to office with indefinite pains and aches, complaining of feeling "stuffy." Urinalysis showed 40 per cent. albumin; hyaline and granular casts; 3 per cent. urea; no acetone; no sugar. No headache, vertigo or disturbance of vision; no gastro-intestinal symptoms. Placed in bed; free catharsis; hot packs, and placed on milk diet, and attempt made to tide case over to stage of viability. Next day blood-pressure was 170; headache, which passed away after hot pack and free evacuation of bowels. No other symptom except noticeable increasing mental dulness (unobserved by family). After consultation, it was decided to continue efforts to await time that child might live before interfering. Decrease in mental acuity of patient distinctly noticeable. Six o'clock on same day patient started vomiting; had passed no urine since noon. Bismuth subnitrat, etc., given, and hot pack used for second time that day. At 8 p. m. while attempting to have evacuation of bowels, was seized with violent convulsions. Taken to hospital where she was seized with another convulsion. Taken immediately to operating room where cesarean section was done; male child delivered which lived only few minutes. Had another seizure on return to her room, and 8 ounces of blood drawn from median basilic vein, and normal saline solution introduced; given normal saline under breasts and by rectum. Remained in deep stupor for four hours, when she was again seized with convulsion; seizures recurred at hourly intervals during night until 9 a. m. Temperature 100, pulse 120. One-fourth gr. morphin with 1/4 gr. digitalin because kidney had not secreted a drop of urine in that time. Continuous proctoclysis begun and hot pack ordered. Could obtain no veratrum in hospital so first dose was not given until 8 a. m., 15 m. hypodermatically being given; repeated every hour until pulse reduced to 60 or nausea and vomiting ensued. Spasms subsided within an hour following first dose of drug, and bladder contained 6 oz. of urine upon catheterization; urinalysis 55 per cent. albumin, numerous granular, hyaline and waxy casts and much cell debris; urea 3½ per cent. Blood-pressure 180, reduced to 110 after second dose of drug. Kidneys began to secrete normal amount of urine; she returned to consciousness on second day. Hot packs, free catharsis, continuous saline (one hour on and two off) and milk diet are being continued. Last thing patient remembered was visit to office a week ago, yet husband and family saw no change until seizure occurred.

In discussion of Dr. Sweringen's paper, Dr. Duemling said this point decided that all women should have regular examinations of urine made (monthly) in order that serious disease of the kidney may be detected. Remembers case of eclampsia a few years ago in which only symptom was intense headache. Ordered taken to hospital; developed a seizure in ambulance and died before hospital was reached.

Dr. Wallace thinks that a woman in pregnant state should be looked after more frequently in order to avoid such difficulties as are mentioned by Dr. Sweringen.

Dr. Bulson believes this case shows the necessity of obtaining an accurate history in cases of this nature. Some of these cases are early nephritics and all that is necessary is the pregnancy for the lighting up of the old condition.

Dr. Morgan: It has been his misfortune to see a number of cases of eclampsia, in only one of which a history of nephritis in early life could be obtained. This woman had a scarlet fever followed by a kidney complication in childhood.

Dr. Carey presented two case reports. Case 1: Patient, man, aged 24; no children; run down; nervous; sleeps badly; appetite poor; bowels slightly constipated; smokes considerably. Lesion of anterior surface of left ear; painful; first red and blotched, followed by vesicle which broke, discharging thin watery fluid; very irritating. Vesicles distinct and did not coalesce; would dry up and new ones appear; spread down along jaw but not to cheek; some on back of neck, but not across median line. Arsenic and iron; washed with bichlorid and applied soothing ointments; grew worse. Ear healed under aristol. Ichthyol dressings to jaw lesions, but no improvement. Did best under ung. bismuthi and salicylic acid. Bromides for nervousness. Took Blaud's continuously. At present practically well.

Dr. Calvin: Thinks lesion is a unilateral one; while not a typical herpes in nature of eruption it looks like herpes.

Dr. Beall thinks that an examination of the hair would clear up the diagnosis. The location does not follow up the nerve trunk. It is too long in duration. There is some glandular enlargement present. Thinks these points decide in favor of infection.

Dr. Wallace said he thought good results would follow painting the lesion with pure formaldehyd.

Case 2: Man aged 87; well nourished; weighs over 200 pounds; had warty growths and areas of scaly

patches on face for years; warts large and pedunculated. April of last year noticed different kind of lesion on forehead which rapidly grew larger. When seen in September had been bleeding and exuded thick discharge; cauliflower-like mass; center indurated. Used pyrogallol 2 per cent., zinc chloride and arsenic pastes. Discharge more free and odor more pronounced though lesion seemed to draw together. Good results from Tromedin paste. New tissue red like cicatricial tissue. Odor disappeared and lesion healing rapidly. Health good. Will report further. Microscopic examination showed lesion to be epithelioma.

Dr. Wallace read a paper on "Psoriasis."

In the discussion Dr. Calvin said he has had four cases of psoriasis, the treatment of which is giving him some trouble. Dr. Buckley reported 500 cases of psoriasis in which he said that it is one of the most obstinate of all skin diseases. Occurs between ages of 15 and 45. Sex equally divided. Extremely difficult to handle. Psoriasis is a disease by itself and not secondary to other diseases. One of the discussants of Dr. Buckley's paper had had psoriasis himself, and obtained no benefit from treatment. His attacks have been associated with gastralgia. Arsenic given hypodermatically in increasing doses is of value. Tar is as beneficial as chrysarobin. One discussant of this paper considered psoriasis incurable. Discussion divided as to method of treatment. One used the alkaline treatment exclusively, the others the stimulating treatment. Dietary ruling of little value.

Dr. Wilking said his experience in treatment of psoriasis was limited to one case. Never had any results with this case. Due to a slow chronic intoxication. Sajoux concludes that it is due to an intoxication from the ovary or the testicle. Someone has claimed to have discovered a mould in lesions of psoriasis and made a vaccine. In the treatment, sun baths, arsenic, colon flushing, with sulphur water, and meat abstinence, gives a good result in some cases. Stelwagon gives great credit to heredity in the etiology.

Dr. Rhamy said he had had an opportunity to prepare a vaccine for treatment of psoriasis. This case presented a double lesion. Pustular acne and psoriasis combined. Under the psoriasis scales was found a *Staphylococcus aureus*, and the pus of the acne pustule a *Staphylococcus albus*. Made vaccine for both conditions with good result.

Dr. Morgan does not believe he would give iron to robust people suffering with psoriasis. Antitoxin seems to aggravate psoriasis.

Motion carried that a committee on revision of constitution and by-laws be appointed by president, this committee to be composed of officers of this society and editor of The Journal; this committee with power to make, amend or to place additions to amendments to bring the constitution and by-laws so that it will conform to that of the State Association, and that they submit a completed copy to this society for action.

Adjourned. Garrett Van Sweringen, Secretary.

INDIANAPOLIS MEDICAL SOCIETY

Meeting of March 5

Society met in regular session with 66 members present. Minutes of the previous meeting read and approved. Council report recommending election of Dr. J. W. Ricketts to active membership and Dr. Henry Alburger to associate membership accepted.

Dr. A. C. Kimberlin reported a case of acute gastric ulcer resulting in death from hemorrhage. Clinical course, treatment and autopsy findings reported.

Dr. F. B. Wynn presented the medical certificate of Dr. James Wynn, issued May 3, 1830, this being the oldest medical certificate of which there is any record in Indiana. It is granted under authority of censors of Fifth Medical District of state of Indiana, signed by President Sylvanus Evarts; Secretary W. B. Laughlin, and Jefferson Helm, Philip Mason and John M. Starbuck, board of censors. Dr. James Wynn was four generations back of Dr. F. B. Wynn.

Dr. F. B. Wynn also presented the first constitution ever published of the Indianapolis Medical Society, dated Feb. 26, 1848. So far as can be determined this was the first medical organization in the city of Indianapolis, and probably in Indiana. The roster shows 21 members. The officers were: President, John H. Sanders; vice-president, Livingston Dunlap; secretary, John S. Bobbs; treasurer, John L. Mothershead; censors, George W. Mears, Charles Parry and Livingston Dunlap. It is interesting to note that on June 6 of the following year the Indiana State Medical Association was organized. Dr. Dunlap was made first president of the state organization, and Dr. Bobbs the first secretary.

Dr. T. B. Noble reported a case of large intraligamentous cyst. Photograph of patient before operation exhibited; cyst pendulous, reaching nearly to knees. Cyst cavity gradually emptied by aspiration followed by laparotomy. Good recovery.

Owing to the illness of Dr. J. R. Eastman, his case reports were read by Dr. H. K. Bonn. Case 1. Esophagotomy. Patient aged 2, swallowed shell button size of twenty-five cent piece which lodged at bronchus. Attempts at removal by forceps failed. Skiagraph located button definitely, and as further attempts at removal with forceps failed, esophagotomy was done. Incision made on left side with bougie in esophagus. Button removed with difficulty on account of small size of esophagus. Wound closed with small drain. Resulting fistula closed in ten days.

Case 2. Removal of one-half of thyroid by clamping. One-half of a goiter had been removed previously; cystic degeneration on other side. Question of function on unoperated side and part only could be removed. Ligation of arteries and removal contra-indicated. Clamp applied in sagittal direction and anterior half cut away. Procedure satisfactory.

Case 3. Reoperated case showing error of brief drainage of gall-bladder. Patient operated at large clinic for appendicitis and gall-bladder infection. Drain removed from gall-bladder on ninth day and patient allowed out of bed on eleventh day. Three months later his symptoms returned and with them a large ventral hernia. Second operation revealed distended and adherent gall-bladder; no bile discharged until tenth day. Evidences of infection appeared and portal thrombosis feared. Colon bacillus vaccine administered with good results. If drainage after first operation had been continued longer secondary condition might have been avoided.

Case 4. Repair of wounds axillary artery and vein. Wounds made in removing fascia from axilla in course of operations for carcinoma of breast. Two cases reported. Closure of wounds by suture done easily, with satisfactory results.

Discussion. Dr. S. E. Earp: Dr. Kimberlin's case shows the care necessary in diagnosis. Autopsies show many mistakes. Text-books not safe guides, as the signs described are often misleading. Experience and observations more valuable than text-book descriptions. Advanced disease may be present without signs. Symptoms of gastric ulcer frequently indefinite.

Dr. Potter: Relics of historical interest should be preserved for museums. Interest is growing and they become more valuable every year. First catalogue of Indiana Medical College and an address of Dr. Bobbs were mentioned as being particularly valuable personal property.

Dr. Brayton: Dr. Wynn is to be commended for his interest in things nistorical. Indiana physicians have been negligent. The movement should be aided.

Dr. Lee: Dr. Noble's case interesting. In large cysts, aspiration on "installment plan" with rest in bed gives patient better chance since blood-vessels have a chance to adjust themselves to change in pressure.

Dr. Tomlin asked why forceps failed in Dr. Eastman's case.

Dr. Bonn: Forceps would not grasp highly polished button.

Dr. A. B. Graham: Dr. Kimberlin's case interesting. Hematemesis as a symptom does not always give a plain indication. Such cases as Dr. Kimberlin's will disappoint surgeon when operating and attempting to demonstrate ulcer. Asked Dr. Noble condition of abdominal wall following removal of large cyst.

Dr. Noble: Picture shows patient after about 40 pounds of fluid had been removed. Exercises and rest in bed restored musculature of abdominal wall. Skin remained somewhat rough and scaly.

Dr. Kimberlin: Case reported was acute. We are liable to confuse acute with chronic ulcer. Stereotyped case reports in text-books misleading. Patient reported was alcoholic; in perfect health with an acute hemorrhage and no physical signs. Many possibilities in case. Surgeon's advice liable to be prejudiced.

Motion carried that Indianapolis Medical Society express its appreciation of the work of Dr. Kemper in writing the "Medical History of Indiana" and that the secretary be instructed to procure 35 volumes of the work to be disposed of to members of the society.

Adjourned. Homer R. McKinstray, Secretary.

Meeting of March 12

Society met in regular session with 30 members present. Minutes of last meeting read and approved.

Paper of evening read by Dr. W. S. Tomlin on the subject, "Nasal Obstruction—Importance of this Condition and Conservative procedures for its Relief." In part author discussed increasing demands on nasal passages by artificially changing conditions in civilized life, and baneful results caused by obstructions from pathologic conditions. He spoke of the relation of throat and ear and systemic affections including exanthems, and other air and dust-borne infections. Mouth breathing practically never simply a habit except occasionally after correction of obstructed nasal passages. In diagnosis, mouth breathing and lack of expansion of upper chest are two remote conditions calling attention to need of examination. Locally, points of pressure, points nearly contiguous, and from form, position and nature of tissue likely to become coapted from slight irritation, and irregularities forming places of lodgement for foreign material and obstruction to drainage of both nose and accessory sinuses should be noted. Where ventilation and drainage of nose and sinuses are proper diseased conditions must be eradicated if permanent cure is to be had. Sprays and douches of value only for pre-operative cleansing and post-operative asepsis. In corrective operations all sound or restorable tissue should be saved. Where septum and turbinates are both at fault, septum should receive major consideration, all obstructive parts being removed by submucous resection. After due time for healing, the turbinates may be operated, only such parts being removed as interfere, and where possible mucous membrane should be preserved. Cautery condemned. Special stress laid on fearless removal of non-recoverable diseased tissue been effective. Ethmoiditis most important of all structures that may be of service in restoring contour and functions.

Discussion. Dr. P. B. Coble: Importance of nasal obstruction properly appreciated by physicians having been affected. Ethmoiditis most important of all causes. Reviewed symptoms and pathology. Tissues should be preserved when possible. Galvano-cautery useful when applied to lower turbinate. Acid causties not used.

Dr. J. J. Kyle: Factor of nasal obstruction in hay fever not appreciated. Asthma may be due to reflex irritation or faulty breathing. Olfaction may be a factor. Effect through vasomotor system may be greater than usually believed. Suppuration of antrum of Highmore usually independent of other infection but does depend on obstruction. Nasal obstruction should be relieved when discovered in anticipation of sinus trouble. Small areas of irritation may have great reflex effect. Submucous resection of septum operation of choice. Lower turbinate should be freely removed.

Dr. Mitchell: Discussed effect of nasal obstruction on face from standpoint of orthodontist. Individuals with nasal obstruction can be recognized at a glance. Children up to age of 5 years usually normal. With nasal obstruction there is liable to be mouth breathing with facial deformities, high-arched palate, protruding teeth and lack of development of lower jaw.

Dr. Dodds: Many facial deformities due to nasal obstruction. Question a social proposition. Children of poor and ignorant parents should be attended to as part of school training. Chest deformities and early glandular tuberculosis may follow.

Dr. Neu asked why change of climate relieves hay fever and asthma if due to nasal obstruction. Few cases of nasal obstruction develop hay fever and asthma.

Dr. Morgan: Surprised to find that many parents think mouth breathing only a bad habit. Use of pacifier for infants promotes facial deformities and nasal obstruction. Asked if partial removal of nasal obstruction contributes to its return.

Dr. Coble corrected impression that ethmoiditis is frequent cause of suppuration in antrum of Highmore. Statement made was that ethmoiditis may cause such a complication.

Dr. Tomlin, closing: Intended to leave impression that function is to be conserved and tissue restored. Hay fever and asthma complex. Neurotic taint may be great factor. Eighty or 85 per cent. of cases are benefited by treatment for relief of nasal conditions. Relief from change of climate is due to change in atmospheric pressure, humidity, absence of odors, etc.

There is a relation between nasal obstruction and facial development. Digestive disturbances may result from nasal conditions.

Adjourned. Homer R. McKinstray, Secretary.

Meeting of March 18

Society met at City Hospital; Clinical night; 48 members present.

Dr. Neu reported two cases. Case 1, man; history of alcoholism; well until year ago. Illness began with numbness and stiffness in legs followed by weakness; pain in back with sense of constriction; slight vomiting. Improvement except in stiffness of legs. Examination showed paresthesias; temperature; sense disturbances; slight atrophy of left leg; exaggerated knee-jerks; positive Babinski on right; no sphincter involvement; no line of demarcation of paresthesia. Transverse myelitis as cause suggested. Case not an acute infection. Pressure would cause unilateral symptoms. Toxic causes absent except alcoholism. No history of syphilis and Wassermann negative. No evidence of sclerosis except nephritis. Cavity formation in cord not possible since there is no disassociation of paresthesias and no flaccid paralysis or atrophy of any degree. Condition most correctly described as case of Erb's spastic paralysis. Syphilis probably the cause.

Case 2. Man with history of syphilis and positive Wassermann. Ataxia, incoordination of movements of arms, speech disturbance; nystagmus; beginning optic atrophy; feeling of general well-being. No sensory disturbances. Condition in syphilis of cord, or of cord and brain, or a parasyphilitic condition; beginning paresis; exaggerated knee-jerks; ankle-clonus; slight spasticity; tendency to a Babinski. Euphoria and involvement of both upper and lower extremities indicate that there is a diffuse cerebrospinal syphilis or a beginning paresis present.

Dr. J. R. Eastman: Case 1. Colloid goiter post-operative; right lobe chiefly involved. Hemorrhage from a vein after completion of operation. Recurrent laryngeal nerve injured in attempting to catch up bleeding vessel. Aphonia followed which cleared up after few days.

Case 2. Traumatic epilepsy; injury 17 years ago; no focal symptoms. On account of depression a scalp flap was made; dura adherent; serum drawn off through small opening. Running suture to be introduced about edge of flap to insure hemostasis was demonstrated.

Dr. Sluss: Patient, man with negative family history; history of typhoid and "muscular rheumatism" involving thigh after present trouble began; no pain except that in thigh; typhoid history doubtful. Patient recovered and well for 7 years; 5 years ago trouble recurred. Patient in bed some time; after recovery noticed shortening of left leg. Three weeks ago tumor over trochanter appeared, later discharging pus; no pain in joint; leg shortened, adducted and rotated internally; muscular atrophy; sinus opening over trochanter; no flexion of knee and movements of hip-joint are free. Question of diagnosis. Charcot's disease would be suspected if Romberg's sign, Argyll-Robertson pupil and diminished reflexes were present. If condition were tubercular, a typical history, muscular rigidity and pain would be present. X-ray shows dislocation and caries of head and neck of femur. Arthritis deformans discredited because of dislocation. Thinks trouble began with an osteomyelitis which recurred at second illness; joint became involved and collection of fluid allowed spontaneous dislocation.

Discussion. Dr. A. E. Sterne: Clinical meetings at City Hospital valuable. In paresis lymphatic elements of blood are liable to be increased. Many cases of paresis do not have mental symptoms other than gradual decline in mental power. In brain surgery hemorrhage from scalp should be carefully controlled.

Dr. Wynn: Cases of traumatic epilepsy not to be considered cured just because seizures stop after operation. Liable to recur when patient resumes old habits. Change of environment will affect frequency of attacks. Mental disturbances not necessary to complete diagnosis of paresis. Dr. Neu's case probably paresis. Cases of this type liable to be rapidly fatal.

Dr. M. N. Hadley: Absence of evidences of a cord lesion does not eliminate possibility of Charcot's joint in Dr. Sluss' case.

Dr. T. B. Eastman: In doing a thyroidectomy, one recurrent laryngeal nerve may be injured and function be restored by action of nerve on other side. Case mentioned in which pain in mastoid followed operation. Adhesions probable cause.

Dr. Emerson: Skiagraph in Dr. Sluss' case shows more destruction of bone in acetabulum than in head of femur.

Dr. Alburger: A differential leukocyte count and a Wassermann blood test would give valuable information in Dr. Sluss' case.

Dr. Freeland, superintendent of City Hospital, announced that coffee was served for the society.

Adjourned. Homer R. McKinstray, Secretary.

Meeting of March 26

Meeting called to order by president with 45 members present. Minutes of last meeting read and approved.

Applications of Drs. Willis D. Gatch, Frederick Hershman and W. S. Given were read the second time.

Dr. O. N. Torian read the paper of the evening on the subject, "Artificial Feeding of Infants with Especial Reference to Examination of Stools." Caloric method of feeding was advocated as a check to be sure that neither too much nor too little is being fed. When proteid is found tough bean curds often appear in stool, and when they appear amount of proteid should be decreased. While boiling milk will make curd disappear, it does not follow that it will cure proteid indigestion. These curds do not usually appear when proteid is fed in amount of 10 per cent. of caloric value of food, and, following Howland, author believes that about 10 per cent. is amount on which normal babies do best. Feeding baby simple dilution of whole milk necessary in some cases, and others are best fed on skim-milk, but ordinarily in feeding of young infants best results are obtained by using top milk mixtures. Gross examination of stool absolutely essential if one desires to feed infants intelligently. Microscopic examination with Sudan III a valuable aid and will help materially in keeping check on infant's fat digestion. Feeding of too much starch or of improperly cooked starch is source of much trouble both to infants and older children. Should never be given before age of one year except in form of cereal water, and when first given should be thoroughly cooked and given in easily digested

form. Frequent examination of stools with Lugol's solution to determine that starch is being digested is a wise procedure. Children with starch indigestion often present following symptoms: peevishness; slight rise in temperature; pot-belly and pain in abdomen, and patches of eczema.

DISCUSSION

Dr. Hoskins: Paper summarizes current ideas concerning infant feeding. Holt and Rotch wrong about use of top milk. Cereals useful for normal children. Seven per cent. sugar often too high; fat should be low. Tendency has been to use too low proteid. Whole milk should be basis of milk modification. Calorimetric method gives valuable check but should not be adhered to too closely. A child more than one year old can usually take well cooked cereals, and by using them the mother can be prevented from using indiscriminate foods. Stool examinations should be made by every one treating children, as this procedure gives much information.

Dr. Kiser: No absolute standard for feeding infants. Basic principles necessary. Calorimetric method is satisfactory. Personally prefers a low proteid and a high sugar. Infants more than one year old can take well-cooked starches. Very difficult to get mothers to cook cereals long enough. Mothers can be taught inspection of stools. Microscopic examination of stools necessary in difficult cases.

Dr. Mumford: Infant feeding very difficult for student leaving school. Cow's milk cannot be made mother's milk. Proteid usually not a disturbing element; fat usually causes trouble. Calorimetric check necessary. No difference whether top milk or whole milk is used so percentages are known. Stools should be examined to determine digestion. Fat indigestion requires careful management. Gain in weight, general disposition and character of stools the important considerations.

Dr. Jackson: Calorimetric method of feeding tells definitely amount of food and percentage determination tells nature of food. Method of determining caloric value of food demonstrated. Calorimetric and percentage methods not antagonistic and should be correlated. Overfeeding can be eliminated by determining caloric value of food. Tendency is to lengthen interval between feedings. Case reported in which an infant 5½ months old could take nothing but starchy food.

Dr. Taylor: Each case of infant feeding requires individual attention. No general rule for management. Fifty to 70 per cent. do well on low proteid with fairly high fat. Proteid is increased and no difficulty arises unless there is special fat indigestion. Calorie determination decides amount of food. Fresh stool should be examined in all difficult cases. Malted food sometimes useful when added to milk.

Dr. Dorsey: Too many closely drawn rules about infant feeding. Essential thing is to know what the food is and the amount of it. Fat and sugar cause more trouble than proteid. Milk often kept too long before use. History of a case will modify probable food for child. Milk in any form bad when a diarrhea is present. Physicians often afraid of starvation period necessary to clean intestinal tract. Some proprietaries useful in special cases.

Dr. Hoskins: Malt foods can be obtained from chemical houses and proprietaries need not be used.

Dr. Shimer: Gram's stain a good one to use in bacteriologic examination of stools. Maltose can be used when other sugars cause trouble from presence of gas-producing organisms. Same object could be accomplished by using a high proteid and a low sugar.

Dr. Mumford: A child does best in low temperature. Mortality high among children living in upper apartments while those in basements do well.

Dr. Brayton: Eczemas in children should be treated by administration of calomel and reduction in amount of food. Children doing badly in summer often do well in autumn. Fresh milk necessary for infants.

Dr. Torian, in closing: Formerly the proteid was criticized, but now is not considered as causing much trouble. Method of feeding does not matter. Interpretation of results of a food the important thing. Stool examination gives the information. Ordinary infant will stand a great amount of abuse in feeding.

Adjourned. Homer R. McKinstray, Secretary.

CARROLL COUNTY

The Carroll County Medical Society held the first meeting of the year at Richfield, March 8, with 11 members present.

Dr. B. Frank Wray, of Camden, was admitted to the society.

"Bronchitis" and "Echinacea" were the subjects presented for discussion.

Adjourned. W. R. Quick, Secretary.

GRANT COUNTY

The regular meeting of the Grant County Medical Society was held February 29.

Dr. L. H. Eshelman presented a case of angioma of the lip which had been operated on unsuccessfully about two years ago. Dr. Eshelman also presented a boy that had a keloid growth on his arm following a slight injury.

Application of Dr. E. G. Zimmer, of Upland, was read and referred to board of censors. Application of Dr. M. S. Bulla for reinstatement considered and voted on favorably.

President asked for a report on Drs. Braunlin and Truman, but the Committee on Legislation asked for more time.

Dr. Eckhart asked if the society wished to ask for one of the public health meetings to be held in Indiana under the auspices of the American Medical Association.

Motion carried that councilor, president and secretary constitute a committee and that matter be left in their hands.

The Eleventh District Medical Society will meet in Marion in May, and the president appointed the following committees to take charge: Arrangements, Drs. F. A. Fankboner, G. R. Daniels, and C. J. Overman; Entertainment, Drs. N. B. Powell, C. O. Bechtol, and L. D. Holliday; Clinics, G. G. Richardson, G. G. Eckhart, and Harry Miller.

Application of Dr. Oliver M. Davis was reported on favorably by board of censors and Dr. Davis was elected to membership in the society.

The March meeting will be held in Marion, and Drs. J. T. Burnett and N. B. Powell are to present papers.

Dr. G. R. Daniels read a paper on "Hypertrophy of the Prostate." In part the author said that hypertrophy of the prostate is seldom noticed until bladder symptoms lead to its detection, usually after the forty-fifth year of age. Some degree of enlargement found

in about 30 per cent. of men over age of 50. Pronounced symptoms occur in about one in three or four of those affected with prostatic hypertrophy. The hypertrophy results in three morbid conditions, i. e., distortion of prostatic urethra, with deviation, elongation and decrease in caliber; elevation of level at vesico-ureteral orifice; obstruction to return of blood from bladder. Then follows inflammation of bladder, imperfect evacuation of bladder and desire to urinate often. The quantity of residual urine slowly increases, at times escaping involuntarily, this oftentimes being the first warning the patient has of the impending danger. Patient usually becomes subject to chronic cystitis with occasional acute exacerbations.

Discussion general.

Adjourned. V. V. Cameron, Secretary.

HUNTINGTON COUNTY

The Huntington County Medical Society met in regular session March 6.

Dr. R. S. Galbreath, of Huntington, read an interesting paper on "Acute and Chronic Cystitis," stating that correct diagnosis can be made only on symptoms, urinary findings and cystoscopic examination. Treatment should be medicinal and hygienic in mild and acute cases, and local treatment in addition in chronic cases.

In the general discussion, Dr. C. H. Good advocated the use of mixed vaccines in selected cases.

Dr. S. V. Wilking, of Roanoke, read a paper on "Cough: Causes and Treatment." Author stated that cough is a symptom reflex in every instance, and transmitted through the vagus nerve. In discussing treatment, the author decried the use of expectorants and ordinary cough mixtures, but advocated more attention to hygienic and sanitary measures, one of these being to teach the patient to cough properly by taking a long deep inspiration and making the expiration with epiglottis wide open. This prevents the forcing backward of infectious material into new areas.

Dr. G. H. Brodbeck advocated the use of urotropin in bronchitis as a disinfectant in doses of from 10 to 25 grains per day, sometimes going up as high as 75 grains per day.

Dr. W. S. Grayston pointed out danger of large and excessive doses of urotropin as likely to cause blood in urine.

Adjourned. R. Q. Tavener, Secretary.

KOSCIUSKO COUNTY

The regular meeting of the Kosciusko County Medical Society was held March 26. Minutes of the last meeting were read and approved. Letters of commendation were read in regard to the new program.

Under the head of "Current Literature." Dr. P. G. Fermier spoke on the subject "Therapeutics," and Dr. C. Norman Howard on "The Eye." Dr. Fermier's subject was further discussed by Drs. Hines, Heffley, Yocum, Thomas and Howard.

Dr. F. J. Young reported a case of fracture of the sternum; Dr. G. W. Anglin, two cases of fracture at lower margin of the orbit; Dr. C. E. Thomas, a case of laryngeal diphtheria; Drs. C. W. Burket, P. G. Fermier, G. W. Anglin and C. C. DuBois, cases of diphtheria; Dr. C. C. DuBois, a case of whooping cough, and Dr. J. E. Potter, a case of cholecystitis.

Dr. C. Norman Howard reported a case of brain tumor in a woman aged 40, white, married; mother suffered for years from sick headache which ceased a few years ago; mother's father living; has had three paralytic attacks and is suffering from cancer of lip. Patient had sick headaches nearly all her life, associated with menstrual period and when very tired. Married 20 years; no children; no miscarriages; never pregnant; mentrual flow normal. Cancer of left breast removed two years ago. First seen October 2, 1911; had been having constant slight headache for two weeks; vomiting occurred at least once a day, not always in relation to meals; headaches became steadily worse. Urinalysis negative and blood normal; not pregnant; heart normal; no tumor in abdomen, or pain on pressure anywhere over abdomen; liver and spleen not enlarged; no glandular enlargement; no marked emaciation. Examination of eyes showed compound hyperopic astigmatism for which glasses were secured; temporary relief of headache following cycloplegia (homatropina). First examination of fundus showed nothing markedly pathological except slightly cloudy disk margin on temple side of both eyes. November 1, patient developed diplopia, vertigo and drowsiness; temporal side of disk hardly discernible; slight optic neuritis; no hemianopsia or dyschromatopsia; intense pain in eyeballs. Pain shifted to right side of head, increasing in right eye and right ear; vertigo. December 21, numbness right leg. Taken to hospital for operation in hope of locating and removing tumor. Wassermann, tuberculin and cerebrospinal fluid tests negative. Ankle-clonus and involvement of facial muscles left side. Diagnosis of tumor in pons, in cerebellar pontine angle, probably metastatic carcinoma. Brain showed effect of marked pressure, bulging out of wound as soon as skull opened; no tumor found on surface of pons; operation practically a decompression operation, prolonging life of patient. Immediately after operation patient was better, but grew gradually worse until death. No post-mortem.

Dr. M. G. Yocum read a paper concerning the heart, as per program.

Adjourned. C. Norman Howard, Secretary.

LAKE COUNTY

The regular meeting of the Lake County Medical Society was held in Gary, March 14, with 20 members present.

Dr. Howat gave a preliminary report of post-mortem examination of a case of aneurysm of arch of aorta. He had presented this case at the November, 1911, meeting of the society, and unusual interest was manifested in it. Dr. Howat will make a detailed report at a later meeting.

Dr. Packard read a paper on "Eclampsia," detailing the symptoms of the onset as he had observed them. In treatment he suggested chloroform, and sometimes chloral for convulsions, milk diet, free elimination and tonics, particularly Bland's pills as general treatment.

Discussion by Drs. Evans, Propper, Howat, Smith and Hosmer.

Secretary reported a membership of 79, a large increase over any previous year. This entitles the society to two delegates to the state association.

Adjourned. E. M. Shanklin, Secretary.

MARSHALL COUNTY

Meeting of February 29

The regular meeting of the Marshall County Medical Society was held February 29. Minutes of last meeting read and approved.

Dr. Loring read a paper on "Constipation," giving the several causes of constipation and their treatment. Discussion general.

Dr. Ely read a paper on "Blood-Pressure," showing the importance of knowing patient's blood-pressure in different diseases. Discussion.

Committee appointed to ascertain cost of furnishing a room at the new hospital to be used as a meeting place for the society, reported, and the committee was continued by the president.

Drs. Knott and Hardy were elected to membership.

Adjourned. A. A. Thompson, Secretary.

Meeting of March 28

The Marshall County Medical Society met in regular session March 28, with eight members present.

Dr. Stevens read a paper on the subject, "Drugs in Obstetrics."

Dr. Eley read a paper on the subject, "Management of Labor." General discussion of both papers.

Dr. R. C. Dennison, of Bremen, was elected to membership.

Motion carried that April meeting be dispensed with on account of the district society meeting.

Adjourned. A. A. Thompson, Secretary.

MONTGOMERY COUNTY

The Montgomery County Medical Society met in regular session at Crawfordsville March 19, with 20 members present.

Dr. H. S. Thurston, of Indianapolis, read the paper of the evening on "Serum Treatment of Disease." The paper emphasized the use of diphtheria antitoxin and called attention to the decrease in mortality; also the anaphylactic reaction which is present in some cases. Serum treatment was dealt with in a general way, but special stress was placed on the use of the bacterins. The essayist preferred the autogenous vaccines when possible to obtain them, but said that some fine results had been obtained by using the stock vaccines. One cause of failures in results is that of not having the proper strain of bacteria. Best results are had in treatment of chronic conditions. Dr. Thurston spoke of the need of aiding the serum treatment in every way possible. While we are at the beginning of the use of serums and bacterins much has been accomplished, but vast fields lie before us, and some future day may see many or all of our most baffling diseases, such as infantile paralysis, cancer, etc., successfully treated by this method. The necessity for cooperation with the State Laboratory and State Board of Health, was emphasized.

Dr. Shimer, of the State Laboratory, was present and led the discussion. He presented charts beautifully illustrating Ehrlich's side-chain theory of immunity. He also answered many questions asked by members of the society. The discussion reenforced many points made in the paper.

Dr. Dennis, of Crawfordsville, reported a number of favorable results following use of tuberculin. Dr. Swank spoke of the use of immunizing doses of diphtheria antitoxin, and said that if anaphylaxis developed at a future time the serum had to be used. The general discussion ended by declaring against the "Hoosier Cancer Cure" and "Nature's Creation" and reprimanding all physicians who in any way aid the above named remedies.

Committee on Magazines for the public library was continued.

Let every physician in the county help to make our society what it should be. Do this by your presence. Won't you?

Adjourned. J. L. Beatty, Secretary.

ST. JOSEPH COUNTY

Meeting of March 25

Society met in regular session with 18 members present. Minutes of previous meeting were read and approved.

Dr. Mitchell read a paper on "Anesthesia." General discussion.

Dr. Lent reported following case: Six weeks ago removed tonsils from a boy; had great difficulty because tonsils were fibroid; adenoids removed at same time. Recovery not good. One month after first operation talked with nasal twang the same as before operation. A large mass in nasopharynx was removed. Specimen presented. Apparently a fibromyxoma. This growth must have been present at first operation but crowded up so high that it was not felt or seen.

On motion bill of $3 for janitor services during February was allowed.

Library committee reported progress, and that the average daily attendance is fair.

On motion Library committee was instructed to return Allbutt's system with the exception of Kocher.

On motion Library committee was instructed to buy the complete set of Journal of Experimental Medicine, published by Rockefeller Institute.

Adjourned. R. C. Shanklin, Secretary.

Meeting of March 12

Society met in regular session with 14 members present. Minutes of previous meeting were read and approved.

Dr. F. P. Eastman reported case of traveling man who was away from home 18 days after a suspicious intercourse. Night after his arrival home had intercourse with his wife, the next day came to doctor with slight irritation in penis, but it was 3 weeks before he developed gonorrhea. Had prostatitis, epididymitis, cystitis and arthritis, and the wife had a double salpingitis. Vaccines were used, 10 million of mixed gonococci at a dose, with marked and prompt effect in man and great improvement in wife. These cases remarkable for the long incubation period.

Discussion by Drs. Mitchell and Varier indicated that they both believed in vaccines in chronic cases and where there was a bacteremia.

Dr. Hillman's paper, "Laboratory Diagnosis of Diseases of the Stomach," was read by Dr. C. E. Varier. General discussion.

Adjourned. R. C. Shanklin, Secretary.

Meeting of March 19

Society met in regular session with 14 members present. Minutes of the previous meeting read and approved.

Dr. R. C. Shanklin read a paper on "Hematuria," which was discussed by Drs. Terry and Miller.

Dr. Lent reported that state pathologist had returned a diagnosis of lymphatic tissue with connective tissue in case of boy reported March 5.

Dr. Hager reported case of man aged 65. Three months ago had severe pain in ear. Examination of pharynx disclosed tumor which grew rapidly. Section sent to state laboratory for examination and diagnosis of lymphoid tissue returned. University laboratory returned diagnosis of round-cell sarcoma which agreed with that made by Dr. Hager.

Dr. Clark reported case of man, who, with previous history of good health, suddenly four days before had severe pain in rectum. Examination disclosed a piece of sharp bone, 1 by 1¼ inches. Removal resulted in complete cure.

Motion carried that the Leo Eliel Corporation be thanked for box of cigars sent the society.

Motion that Dr. Bosenbury be appointed a committee to insert the text of the Owen bill in the papers was tabled by the society.

An article in *The Tribune* relative to doctors was read and suggestion made that it be ignored.

Adjourned. R. C. Shanklin, Secretary.

Meeting of March 26

Society met in regular session with 17 members present. Minutes of the previous meeting read and approved.

Dr. Eastman reported case of child, aged 2 years. Three weeks ago had convulsions following eating of sausage the day before; had had no bowel movement. After course of calomel child felt normal again. Ten days later had discharge from ear and fever. Next day felt better. Few days later convulsions and temperature of 105. Patient followed this course several times. No diagnosis.

Dr. Hansel reported similar case. Ear drum punctured. Urine negative. Babinski positive. Several joints involved. Death. No doubt was a pyemia.

Dr. Mitchell reported case. Man had bilious attack with headache; temperature of 104 and coated tongue every three or four weeks. This condition present for six months. Two weeks ago ear began discharging. Mastoid opened and drained.

Dr. Hager said the patient could not have had mastoid condition for six months. Previous attacks must be explained on some other ground.

Dr. Terry's case of tubercular peritonitis in child of 2 years is reported much improved.

Dr. Wegner reported case of man 23 years of age. Two days ago delirious, maniacal; temperature subnormal; pupils dilated unequally; alcoholic. Looked like hysteria, mania or auto-intoxication. After course of calomel cleared up.

Dr. Bosenbury reported case of boy 4 years old. Last week a skin eruption appeared in blotches over body; ankles and eyes swollen. Urticaria.

Dr. W. G. Wegner read a paper on "Poliomyelitis." General discussion.

Application for membership of Dr. E. R. Dean referred to board of censors.

Adjourned. R. C. Shanklin, Secretary.

TIPPECANOE COUNTY

Society met in regular session with 12 members present. In the absence of secretary, Dr. Reser was appointed secretary pro tem.

Dr. Thompson reported a case in which a school boy had convulsions which at first appeared to be entirely hysterical, but later seemed to be taking on some epileptoid features.

Dr. Levering reported a case of eclampsia in a multipara. He dilated and performed version and delivered a seven-months dead fetus. Mother doing nicely., Case not known to him before the convulsions, but afterward the urine was loaded with albumin.

Dr. Lairy reported the case reported before the last meeting as being a case of *Staphylococcus aureus*, which yielded quickly to bacterins.

Dr. Hupe reported a case in which a twelve-week united fracture of the femur was again fractured by a fall.

The essayist, Dr. Terry, being absent, on invitation of the society, Professor Burrage gave a very instructive talk on "Antitoxin and Vaccines."

Application of Dr. Hubert E. Allen, of Clark's Hill, was referred to board of censors.

Professor Burrage reported that the Committee on Public Health, in union with a like committee of the Dental Society, has secured Dr. Hunt, dean of the College of Dentistry, Indianapolis, to deliver a public lecture at the new high school building March 21.

Dr. Lairy, as a member of the school board, invited the members of the society to make on inspection of the new high school building after the lecture.

Adjourned. W. M. Reser, Secretary pro tem.

Meeting of March 25

Society met in regular session March 25, with 19 members present. Minutes of previous meeting read and approved.

Dr. Thompson reported a case of normal labor in which child was born with an enlarged gland on right side of neck in the thyroid region. The child experienced difficulty in breathing when it lay on its right side.

Dr. Thompson read a paper on "Ectopic Gestation." Discussion by Drs. Ruschli and Washburn.

Dr. Driscoll read a paper on "Diseases of the Esophagus," referring particularly to stricture of the esophagus. The author is a sufferer from this condition.

Society took up the matter of Dr. A. J. Lane, who had been guilty of advertising. The incident has been closed inasmuch as Dr. Lane has written a letter of apology to the society.

Application of Dr. Herbert Allen, Clarks Hill, read and referred to board of censors.

Motion carried that chair appoint a committee of three to cooperate with a like committee of the local Nurses' Association with reference to entertaining the State Nurses' Association at its annual meeting in Lafayette.

Motion carried that society tender Prof. Burrage a dinner at the close of the college year, the occasion being the departure of Prof. Burrage to a new field.

Motion carried that committee be appointed to take charge of banquet.

Adjourned. E. Van Reed, Secretary.

VIGO COUNTY

Meeting of February 6

Society met in regular session with 21 members present. Minutes of last meeting read and approved.

Dr. R. L. Woodard read a paper on "Reflected Abdominal Pain," special attention being given to the differentiation of cholecystitis, gastric ulcer and chronic appendicitis.

Dr. O. R. Spigler read a paper on "The Uses of Iodin," giving a review of recent literature, and

strongly advocating the free use of iodin in all dirty emergency work to the exclusion of soap, water and other methods of disinfection. General discussion.

Dr. Charles N. Combs reported a case and presented specimen of an enormously enlarged bladder in an infant at term with double hydronephrosis due to an imperforate uretha. Aside from an imperforate anus no other malformation existed. Birth was impossible until bladder was punctured and a quart of retained urine escaped. No attempt was made to resuscitate the child as it could not have been viable.

Adjourned. R. L. Woodard.

Meeting of February 13

Dr. Johnson presented a paper on "The Diagnosis of Positions and Presentations," emphasizing the importance of the diagnosis of positions by abdominal palpation.

Dr. E. L. Larkins presented a paper on "The Care of the Perineum."

Dr. A. H. Chaffee read a paper on "Occipito Posterior Presentations" with report of a number of cases.

Twenty-five members present.

Adjourned. R. L. Woodard.

Meeting of February 20

Dr. W. A. Gekler, of the Rockville Sanitarium, illustrated the subject "The Use of the X-ray in the Diagnosis of Pulmonary Lesions," with a large number of lantern slides made from cases which he saw in the Imperial University clinic, Wurzburg. The stereoscopic radiographs were exceptionally fine.

Twenty members present.

Adjourned. R. L. Woodard.

Meeting of February 27

Society met in regular session with 23 members present.

Dr. M. A. Boor presented a paper on "The Diagnosis of Rectal Diseases," emphasizing the importance of careful history taking, and describing various methods of examination.

Dr. Rudolph Yung read a paper on "Surgical Considerations in Rectal Diseases," describing various procedures most suitable to given conditions. Discussion general.

Adjourned. R. L. Woodard.

BOOK REVIEWS

Case Histories in Neurology. A Selection of Histories Setting Forth the Diagnosis, Treatment and Post-Mortem Findings in Nervous Disease. By E. W. Taylor, A.M., M.D., Instructor in Neurology, Harvard Medical School: Assistant Physician, Dept. of Neurology, Massachusetts General Hospital, etc. Cloth, pp. 305. W. M. Leonard, Publisher, 1911.

This practical method of treating a subject, by the presentation of case histories, accompanied by operative and post-mortem findings, when such data are available, lends itself readily to the study of neurology.

Dr. Taylor's book opens with a section on general diagnostic methods, which is followed by the main divisions of the volume; viz., diseases involving peripheral nerves; diseases of the spinal cord; diseases of the brain; conditions of undetermined pathological basis; psychoneuroses.

Much attention to differential diagnosis is given in the 114 case histories presented and certain therapeutic suggestions are offered.

While a certain looseness in diction and printing obtains, yet the context is sufficiently interesting to warrant disregarding it.

Progressive Medicine. A Quarterly Digest of Advances, Discoveries and Improvements in the Medical and Surgical Sciences. Edited by Hobart Amory Hare, M.D., Professor of Therapeutics and Materia Medica in the Jefferson Medical College, Philadelphia, assisted by L. F. Appleman, Instructor in Therapeutics, Jefferson Medical College, Philadelphia. March I, 1912. Paper, pp. 377. Price $6.00 per annum. Lea & Febiger, Philadelphia and New York.

In this number Frazier opens his section on surgery of the head, neck and thorax by a rather comprehensive review of our knowledge of the hypophysis up to the present time. Other interesting discussions in his section are those on cleft palate, the thyroid and thymus glands, and the surgery of the heart.

Although Ruhräh's section-title includes acute rheumatism, pneumonia and influenza, in his discussion of the infectious disease none of these diseases is taken up. Very creditable reviews, however, find space in the subjects of poliomyelitis, pellagra, and, as usual, typhoid and tuberculosis.

Crandall opens his section on pediatrics by an epitome of the President's address before the annual meeting of the American Pediatric Society. The most notable features of this section are the discussions on the urine in infancy and infant foods.

Kyle and Duel close the volume with a section by the former on rhinology and laryngology and one by the latter on otology.

Microscopy, Bacteriology and Human Parasitology. Medical Epitome Series. By P. E. Archinard, A.M., M.D., Bacteriologist, Louisiana State Board of Health and City Board of Health, New Orleans. New (second) edition, thoroughly revised. 12mo, 267 pages, with 100 engravings and 6 plates. Cloth. $1.00, net. Lea & Febiger, Publishers, Philadelphia and New York, 1912.

This manual presents in a concise form the essential points of bacteriology and microscopy. There is also included a section on intestinal parasites, each illustrated. The physician desiring to refresh his memory along these lines will do well to study its pages.

A Manual of the Practice of Medicine. By A. A. Stevens, A.M., M.D., Professor of Therapeutics and Clinical Medicine in the Woman's Medical College of Pennsylvania. Ninth Edition, Revised. 12mo of 573 pages, illustrated. Philadelphia and London: W. B. Saunders Company, 1911. Flexible Leather, $2.50, net.

This little manual, always useful because of its condensed volume of knowledge, has been rendered even more so by its last revision, many sections having been entirely rewritten and new ones added upon the subjects of acute dilatation of the stomach, mucous colitis, sprue, suppurative cholangitis, beriberi, Malta fever, sleeping sickness, plague and pellagra.

Some of the newer therapeutic measures, such as the subcutaneous injection of adrenalin in bronchial asthma, the soy-bean in diabetes mellitus and tuberculin in tuberculosis are not discussed.

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ORIGINAL ARTICLES

GALL-BLADDER INFECTIONS AND GALL-STONES, FROM A STUDY OF ONE HUNDRED CASES *

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ANDERSON, IND.

In being asked to prepare a paper for the State Medical Society I take it as an honor and as a pleasure, and I have chosen as my subject the same that I used six years ago at West Baden, trusting that my experience with gall-stones and gall-bladder disease may permit me to discuss 100 cases with more knowledge than I possessed when I addressed the society after studying my first twenty-five.

Taking up the subject as I would consider a patient, I wish to dwell a moment on the bearing of the family history. We see in many families not only those who show such outward changes as obesity, or a leaning toward leanness, but also many cases of tubercular predisposition, cancer predisposition, and those showing diabetic, nephritic, cardiac, hepatic and nervous tendencies. In two families I have had an opportunity of observing and proving three generations to be subject to gall-stone disease. In one the grandfather died of liver trouble and a post-mortem was held, finding gall-stones and gall-bladder disease as the cause of death. The daughter suffered with gall-stones and after being treated for years for neuralgia of the stomach, came under my observation, when a diagnosis of gall-stones was made, and now her daughter is under my personal care with the beginnings of an hepatic insufficiency and positive evidences of gall-bladder disturbance. In a second family I have treated the mother for cholecystitis, operated on the daughter for cholecystitis and have the granddaughter, now a girl of 18, as an occasional patient with signs and symptoms similar to those from which the mother and daughter suffered.

The second element in taking a case history is that of finding out facts concerning the personal illnesses that the patient has had. In a great majority of our gall-bladder cases, we can obtain a history of typhoid fever and those who do not give a positive history of typhoid fever, give a history of some severe illness of an infectious nature, which was followed by a period of convalescence, associated with stomach trouble. Pure cultures of typhoid germs have been obtained from the gall-bladder many times and even years after the original infection. Pain in the upper abdominal region in our typhoid patients has been noticed, but few associated the fact with complicating cholecystitis. In a recent case of typhoid fever I had the opportunity of observing for two weeks an acute cholecystitis that was the most troublesome element in the convalescence and even at this time the patient complains of some pain and distress with a feeling of fulness in the gall-bladder area. Next to the typhoid germ, the colon bacillus is probably the most frequent factor in causing an inflammation of the gall-bladder. Pure cultures of typhoid germs, of colon bacilli and ordinary pus cocci have been secured from the gall-bladder and it is altogether probable from the frequency with which gall-stones are found that the ordinary diarrheas are frequently complicated by an infection of the common duct.

Various observers have reported constantly finding the lower portion of the common duct and the ampulla of Vater inhabited by bacteria

* Read before the Indiana State Medical Association, at Indianapolis, Sept. 29, 1911.

even though the majority of the cases showed the gall-bladder to be non-infected. The formation of gall-stones is now known to occur as a consequence of a biliary infection, associated with some peculiar chemical change in the bile. The infection of the gall-bladder may be a benign one just as we have gall-stones present with a hydrops of the gall-bladder without pus formation. So can be accounted for many of the cases of gall-stones that are found in autopsies, that have given rise to no symptoms of their presence during the life of the patient.

The ages of my patients vary from 16 to 74 years, a majority of them occurring in women in the latter period of life. A case of gall-stones in a girl 16 years of age is sufficiently interesting to more than mention, inasmuch as Dr. Keller, the attending physician, had had the girl under his observation since she was 8 years old, and had made a diagnosis of gall-stones shortly after seeing her for the first time. When we operated we found a hydrops of the gall-bladder and a dozen stones, from pea to bean size, imbedded in the cystic duct, only one or two of the stones being free in the gall-bladder. The character of these stones was different from any that I have removed, inasmuch as they were not smooth or faceted, but were covered with minute incrustations half the size of a pin head, making them resemble a very small blackberry, excepting that they were yellow in color. The shape, the size and the consistency of the stones that I have removed, varies. A case recently operated on had 110 perfectly white glistening stones, very light in weight, and about all the same size, none under the size of a navy bean and so perfectly matched that they resembled a handful of pearls after they had been washed.

The signs and symptoms of gall-bladder disease and gall-stones have been so thoroughly discussed that it would be useless for me to take up your time with a review of them. However, I have had two cases where the gall-bladder was enlarged and extended down to McBurney's point and there were such signs and symptoms that the attending physician called on me to operate for a supposed case of appendicitis. In seven cases I found the gall-bladders of such a size that they were distinctly palpable from the outside, varying from a lump the size of a small egg to a mass apparently the size of one's fist. Two of the cases instead of a general distention in a globular manner had an enlargement of the gall-bladder more in length than an increase in diameter and one gall-bladder was 7 inches long from the cystic duct to the fundus.

A consideration of the differential diagnosis of gall-stones and gall-bladder disease has caused me to think of many things. It has been my experience to be called in consultation in three cases of perforating ulcer of the duodenum. One of them I had on the operating-table, but his condition was such that I refused to operate or give an anesthetic. He was put back in bed and died within a half hour. Another I had sent to the hospital but he died before we could get him to the operating-room. The third one refused an operation and died, but it was my good fortune to hold a post-mortem on all three of the cases. The presence of a duodenal ulcer may show some of the anatomic symptoms of gall-bladder infection. However, the pain in the ulcer is customarily associated with a definite period of the day and the pain is noticed most of the time after meals, when the food is passing out of the stomach. It is customarily associated with other evidences of an excessive acidity in the stomach and relief is obtained more frequently by medical treatment than is experienced in gall-bladder diseases. The question of appendicitis may become uncertain should the gall-bladder be enlarged to the extent of reaching down to McBurney's point. And when this occurred in two cases that I have seen, the pain was referred up and the tenderness extended upward toward the liver and not down in the pelvis or into the back as we find in an appendicitis. Also the amount of rigidity was less, the temperature was not raised, and the pain, while severe, was not complained of as does the patient with an appendix lesion. The most constant sign has been Murphy's subcostal pressure sign and while tenderness may be elicited in many patients by deep pressure over the gall-bladder, who do not have a gall-bladder infection, yet the similar hypersensitiveness could be found on the opposite side, so that the sign is to be taken as a positive one only in the presence of other symptoms and the signs of gall-bladder infection or gall-stones. Jaundice has occurred in about 10 per cent. of my cases. We can look back to the time when gall-stones was an uncommon disease because we were not trained in diagnosis. We read of jaundice being accepted as one of the signs of cholelithiasis but as our skill increases we find different observers reporting jaundice less frequently because their patients have not been allowed to go the point where an obstruction of the common duct occurs. It is just as desirable to clean out the infected gall-bladder as it is to remove the infected appendix. The time will certainly come when a surgeon who waits for jaundice as a positive sign of gall-

stones before operating will be condemned as much as the surgeon who waits for an abscess to form before operating on a case of appendicitis. The more of these cases I see the less do I mention gall-stones. I speak of an infected gall-bladder, draining it and removing stones if they are present. Stones are a complication of the disease and not the cause. If they are present it means that the patient has probably been treated for various other ills than what has been really the matter, because gall-stones require months and years for formation before acute symptoms become serious. It is possible to have an acute infection of the gall-bladder with an abscess but it is extremely rare. I have had two cases where there was an empyema of the gall-bladder but the inflammation was a subacute one and from the thickness of the gall-bladder the infection had been present for years. Most of my patients tell me that they have been treated for years for stomach trouble, indigestion, neuralgia of the stomach and various other indefinite conditions.

Three cases have been referred to me for intercostal neuralgia and neuritis in the right arm, in whom I found an infection of the gall-bladder as the cause of their pains. As we would not care to overlook a heart lesion complicating a case of cholecystitis, so should we be just as careful when a patient comes to us with some chest disturbance that we do not overlok an abdominal cause. Even though all the signs and symptoms should point to an abdominal lesion our examination is never complete unless we know the condition of the heart. Osler and Babcock have written monographs on myocardial degeneration as a sequence of chronic cholecystitis. My experience has been too limited to make any deductions along these lines but I always make a careful examination of the heart in these cases, since losing one of my best friends with a heart lesion that undoubtedly occurred as a complication of a long suffered infected gall-bladder. A cardiac lesion is possible after any infection and we should be just as careful in our examinations of the chest as we try to be in our abdominal examinations, irrespective of the primary lesion. The intra-abdominal complications are surgical and outside of adhesions and location of stones in the common duct, three of my cases are worthy of special mention. One of them was a woman 74 years of age, who had suffered with her gall-bladder for years, and following an attack of special severity, the pain ceased with a greater degree of relief than ever before experienced. A few days later, however, symptoms of an impacted bowel developed and the ordinary measures proving ineffective, a digital examination of the lower bowel was made and a hard mass found impacted in the rectum. This was dug out and found to be an unusually large gall-stone. Following its removal from the rectum, there was no return of the attacks of gall-stone colic and it is possible that the large stone had ulcerated through the gall-bladder and left a permanent opening, giving drainage to the infected gall-bladder. In two other cases that I have seen and advised an operation, there was a question of malignancy that caused me to hesitate. One of them decided to have an operation several days after I saw her and telephoned that she would be at the hospital two days later. That night she was taken very ill, had a chill and the doctor who was called found her in profound shock, in which condition she remained until her death about six hours after being taken ill. I had the opportunity of performing an autopsy, finding the gall-bladder and the liver had become cancerous and the gall-bladder had perforated, several large stones being found free in the peritoneal cavity. The other case with an identical history I did not get to examine after death, but undoubtedly there had been a perforation of the gall-bladder, whether from a malignant change or not, I do not know, but she had a very severe attack of pain, followed by profound shock and death.

As to treatment of these cases, there is a medical side and a surgical side. I felt for a long time that there was only a surgical side, but after having had the experience of operating on a patient, removing a large number of gall-stones, and two years later having the same patient return to me with a positive history of a return of the gall-stones in the gall-bladder, I now feel that we have neglected our patients if we do not follow our surgical work with a protracted line of medical treatment. We know that our gall-stone and gall-bladder patients can go to certain Bads and Spas and get relief after a certain length of time, but those of us who have followed our cases closely can secure at home the same degree of relief, provided our patients will as consistently take the water cure in their homes as they do abroad. I do not feel satisfied after a gall-bladder operation to have the drainage cease too quickly. I use a large tube for drainage because the opening that it leaves will require a longer time to close. I feel better satisfied when the gall-bladder drains for six weeks than when it closes in two, but I insist on my patients remaining under close observation at least six months after operating on them, and during that time, giving them the benefit of what Byron Robinson aptly called visceral drainage.

One of the conditions present in nearly all cases of cholelithiasis is an hepatic insufficency. One patient recently operated on barely drained 4 ounces of bile in twenty-four hours. Of course much of the bile goes through the intestines, but the character of the bile is the same, and this bile was thick and viscid, almost tarry and leaving a thick sandy deposit in the bottom of the drainage bottle. The patient was greatly relieved after the operation but recently she had some of her aches and pains of former times return, which shows that the liver is not getting rid of its normal secretion.

The question of perfect relief after an operation depends on two factors, the extent of the infection in the gall-bladder, and the amount of change there is in the chemistry of the liver secretion. Some of our hepatic patients must be stimulated as long as they live. The removal of the gall-stones and thorough drainage afterward, means in a majority of cases complete and permanent relief but in several of my cases the relief obtained has not been all that I had hoped for. On the other hand, in one of my cases where the adhesions were of such a nature that I did not find the gall-bladder after working twenty minutes in the abdomen, the patient not only recovered from the operation, but cleared up of her extreme jaundice, gained about 90 pounds in weight and has been in perfect health ever since then, a period of about seven years.

The question of malignancy and of operative technic in the rarer forms of gall-stone complications are worthy of a paper to themselves. The operation on an average case of gall-stone disease is simple, yet the possibilities that may be demanded of the operator in meeting certain complications may be great. My complicated cases have been few, and my results so far as operative mortality is concerned, have shown no fatalities. These 100 cases which have been in my sphere of observation cover a period of eleven years and every case that I get makes me more certain that operative delay is dangerous and that all cases after showing signs of gall-bladder infection develop complications unless operated on. Ultimately the general health is impaired, making the patient more susceptible to other infections, or they may be one of those who have suffered and waited so long that the irritation has permitted a cancerous invasion to occur.

Finally, I want to mention a class of patients that I have watched with great interest before and especially since reading an article by Frank S. Billings on "Locomotor Ataxia." This article states that 12 per cent. of the tabes cases he has seen had been operated on for gall-stones, from a misinterpretation of the gastric crises. I have had two cases, sent to me recently for operation, that gave undoubted suspicious history of gall-bladder disease or gall-stones, but a complete examination of my patients showed a loss of the knee reflex and a pupil not reacting to light. One denied syphilis, and Wassermann was negative; the other gave a suspicious history, and Wassermann was positive. The latter was given a dose of salvarsan and is receiving weekly an injection of salicylate of mercury in alboline, with most marked results. The pain and vomiting have entirely ceased.

So we must realize that there is a medical side and a surgical side to the disease, but most important is that we should anticipate complications when our diagnosis is certain, and verify our findings by exclusion when our diagnosis is questionable.

359 Union Building.

DISCUSSION

Dr. W. D. Haines, Cincinnati: Mr. Chairman and Gentlemen, I thank you for the privileges of the floor.

I wish to thank the essayist for having presented to us in a very practical and simple form a rather complicated subject, that of gall-stones. Innocent gall-stones should be placed in the same category with innocent fibroids. The doctor has given you living pathology. It is perhaps but a decade since we have been teaching living pathology. We formerly studied the end-results of disease, observing them in the morgue or dead-house. If we can learn that dead men have no diseases, then we will begin learning living pathology. Probably the most interesting and difficult feature of gall-bladder and gall-duct work is the differential diagnosis of gall-bladder infection, and I am very glad to hear the essayist use this term instead of gall-stones. Probably two-thirds of the members present if asked for the prominent symptoms of gall-stones would give jaundice as one of the first symptoms. The doctor has told you very properly that jaundice is but an incident in the clinical history of gall-bladder infection, and he might further have added that if the case is seen early enough and properly managed, jaundice will never enter into the case at all.

Vomiting probably is the one symptom that will assist you more in differential diagnosis than either pain or jaundice, or the light colored stool. The vomiting of gall-bladder infection is peculiar in that it is continuous; it comes on regardless of the presence or absence of food. The patient continues to bring up the secretions even after the stomach is empty. The chief difficulties in forming a correct opinion that will confront you will be disease of the pancreas, stomach ulcer and disease of the right kidney. The stomach

and kidney involvement, as a rule, will be differentiated. In dealing with disease of the other three organs, duodenum, liver and pancreas, I think you will find much more difficulty in making a differential diagnosis. All four of these organs are derived from the fore-gut, and the blood-supply is derived from the same source. The pneumogastric and spinal nerves, the ninth dorsal to the second lumbar inclusive, participate in this trouble. The function of each is one and the same. It has to do with the early stages of digestion. So you will see that the interrelationship of these organs is anatomically and embryologically so intimate that necessarily there must be an intimate relationship in their function, symptom and pathology. Those who deal with upper abdominal surgery will find gall-bladder infection in a high percentage of cases complicating gastric and duodenal ulcer. Four years ago we began to drain the gall-bladder in conjunction with stomach surgery in that type of case where you have a muddy skin and generally changed metabolism, the low degree of health of which the doctor speaks in his paper. It is in that type of case that we receive our greatest benefit by draining the gall-bladder for two or three weeks in conjunction with a well-performed operation on the stomach for gastric ulcer. The drainage of the gall-bladder would relieve this very condition that the doctor so happily styles hepatic insufficiency.

I would insist first on the early recognition of gall-bladder infection, and those conditions which will later result in gall-stones. Second that gall-stones is not a disease; it is the end-result of disease. Third, that thorough and long-continued drainage are highly essential to success in the management of the case.

Dr. J. H. Ford, Indianapolis: I do not arise to discuss this question. I sincerely regret that these papers were not read at the general meeting of the Society. They should be discussed before the general practitioner, as he sees the case first and makes the early diagnosis. These papers are needed in the general meeting of the Society and not before the surgical section, as the questions of early diagnosis and referring the case to the surgeon are most important.

Dr. S. J. Young, Valparaiso: Mr. Chairman: I have been pleased and instructed by this splendid presentation of the subject and I endorse what has been said. There is one phase of the subject which I think ought to be emphasized. I refer to the results of gall-bladder infection if the condition is not early relieved. I do not desire to go into detail with reference to these complications, but to direct attention to one thing which seems to me of importance, and that is the association of pancreatic disease with neglected gall-bladder infection. It has been a question in my mind in some cases of diabetes mellitus whether or not the trouble might not be traced to an infected gall-bladder. We all know that neglected infection from the gall-bladder is apt to involve the pancreas and pathologic conditions result; with degeneration in the islands of Langerhans diabetes is apt to be one of the complicating factors. Therefore when these cases come to us, I think we should direct attention not only to the diabetic symptoms, but try to trace the disease, if possible, to its source, and it may be that a considerable percentage of these cases can be benefited by drainage of the bile passages. Conversely, in gall-bladder infections we should not lose sight of the possibility of pancreatic disease, including diabetes, and should advise drainage as a prophylactic measure.

Dr. Hugo O. Pantzer, Indianapolis: Mr. President, those of us who have watched Dr. Austin in his career take great pleasure in noting that he still applies to his practice the old-time ardor and studious care as marked the early stages. Incident to the report of many cases, and by no means a fault, a great many points that are moot are not mentioned. It is a matter of some perplexity to know what individual points to take up. The matter of heredity mentioned in the paper is one that in my observation likely plays a very small rôle. I would not ignore it, but ordinarily would choose to discount it as having little practical value.

To my observation, about 90 per cent. of all cases of stomach trouble are owing to disease of the gall-bladder. The stomach to my notion is the best-behaved organ in the entire organism. Whenever we are in the presence of stomach symptoms, we have at once reason to think of the gall-bladder as the source of the clinical manifestations. Then, most essential, is that fact brought out by Dr. Kerr of Germany in his replete study of gall-stones and gall-bladder disease. He finds that gall-bladder disease is essentially one of infection, and reason for its treatment is invariably given by the consequences of infection.

The appendix and the gall-bladder are the two cesspools of the body. If it is not one, it is the other, which in the vast majority of cases gives rise to present trouble. It is a good working basis to hold to such generalizations. There is in favor of the second cesspool, the gall-bladder, that it has wonderful resistive powers to infection. Tubercle bacilli have been found domiciled there without giving any evidence of affecting the structures of the gall-bladder. Typhoid bacilli have been in the gall-bladder seventeen years after the patient had recovered from this fever. Germs may be retained there in viable condition for many years without giving rise to manifest trouble. However, once we have these germs disposed of by cholesterin crystals having aggregated around the bacteria in the form of stones, they are innocuous. It is not until again the bladder becomes infected that we have trouble. In other words stones in the gall-bladder

of themselves are little mischievous. It is the plus of an active infection of the gall-bladder that creates trouble, and calls for remedy. One point brought out by the doctor and which was very happily emphasized by him, was that hepatic insufficiency is a clinical entity and must receive full consideration. I would here emphasize that when we consider the indications for an operation we must seriously consider the state of functional condition of liver, skin and kidneys. If these functions are impaired we have every reason to consider seriously an intervention by operation, and prognosis then is commensurate with the glandular restitution possible.

Dr. J. R. Eastman: I want to emphasize the difficulty of the differential diagnosis; however, every one of the symptoms which may be received as evidence of gall-bladder disease, pancreatitis, ulcer or appendicitis is an indication for surgery, and the opening of the abdomen by a long right rectus incision will clear up these difficulties of diagnosis.

Dr. L. F. Schmauss, Alexandria: I wish to compliment Dr. Austin on this excellent paper. I agree with him on everything except one point where he says that on post-mortem examination gall-stones are found which during life did not give rise to symptoms. If he will modify that and say that during life the presence of these gall-stones was not recognized, I will agree with everything that he has said. In regard to this point, I only repeat what I maintained at the St. Louis national meeting a year ago, that I do not believe in the statement which is so often made, that in only 5 or 10 per cent. of cases do gall-stones give rise to symptoms. I maintain that nearly all cases, at least 90 per cent., will give rise to symptoms at one time or another, usually not continuous or serious trouble, but to these things which Dr. Austin has mentioned — "neuralgia," "stomach trouble," etc., and that at least 10 per cent. will go on to typical gall-stone colics which in many cases will lead to chronic invalidism or some serious complication and death unless relieved by operation. In regard to the difficulties of diagnosis, I can only corroborate what Dr. Austin has said. I saw one case operated for gall-stones in the von Bergman clinic; no gall-stones were found. The patient died the following day. The post-mortem examination, revealed a small postduodenal abscess due to perforation of a duodenal ulcer. Another case which was regarded for years as a typical gall-stone case and subsequently operated as such by one of the best surgeons of this country, but no gall-stones or gall-bladder disease but a chronically diseased appendix was found. Another where an acutely inflamed and greatly enlarged gall-bladder was operated for appendicitis, the incision made at McBurney's point. I had a case in my own practice where an enlarged and diseased gall-bladder reached to Poupart's ligament. It is not always easy to make a positive diagnosis of gall-stones.

Following operations for gall-stones, I invariably treat these cases for a protracted period because I feel gall-stones are not a primary cause of the symptoms, but a result. Why some of these cases will not get well after an operation is because in many cases the stones are not only located in the gall-bladder but also in the cystic or common duct, and may be overlooked; and occasionally in the hepatic ducts. This occurs in a slight percentage of cases, and these cases will not get entirely well in spite of removing the stones and the drainage of the gall-bladder.

Dr. M. A. Austin (closing): I wish to thank the members of the society for their kindly reception of my paper. Inasmuch as Dr. Mayo, having an experience with gall-stones probably second to no one, has written a recent article in which he states that "innocent gall-stones are a myth," I may be pardoned my use of the term. I certainly agree with the opinion that it is probably our lack of skill in diagnosis that prevents more cases of gall-stones being treated and operated on before the patient carries the disease to the post-mortem table. Again, I would like to commend Dr. Ford's suggestion that the papers that are usually read in the surgical section would have more value if they could be heard by the general practitioner, for those of us who have the opportunity of verifying our diagnosis by operations realize the importance of getting these cases as early as it is possible for the general practitioner to refer them to us, and before malignant complications have arisen. I have operated on a patient within the past week in whom I found an empyema of the gall-bladder, many gall-stones and marked adhesions. The contents of the gall-bladder were so foul-smelling as to remind one of an appendiceal abscess. This woman gives a history of having been treated by many physicians for over twenty years for stomach trouble and a few doctored her for liver trouble, but up to the time I first saw her a week ago last Sunday, no one had ever told her that she had anything the matter with her gall-bladder. The acute infection of the gall-bladder has been present in this case for at least three years, as a history of periodic recurring chills, fever, pain and swelling dates back that length of time.

THE EARLY DIAGNOSIS OF PULMONARY TUBERCULOSIS *

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The fight against consumption is being carried on along two general lines, namely, prophylaxis and treatment.

* Read before the Fifth District (Indiana) Medical Society, Nov. 16, 1911.

The early diagnosis plays a large rôle in both of these, for without diagnosis we cannot segregate the tuberculous individual or carry on any rational treatment. The term "early diagnosis" really means the determination that an individual is tuberculous as soon as possible after infection has taken place. The autopsy records of careful observers show that practically 80 to 90 per cent. of the adult population have either healed, latent or active lesions in their bodies. Persons often carry around in their bodies for years tuberculous foci which go undetected either because they are not extensive enough to be found on careful examination, or because they cause no symptoms. In the population of our cities this universal infection has been shown to have taken place before the fifteenth year. These data, although collected from European cities, Vienna, Munich, Berlin, Zurich and others, will very likely without any modification hold for American cities also, because there is not much difference in the tuberculosis morbidity and mortality or in the hygienic conditions between the large American and European cities. In addition to the autopsy records, extensive use of tuberculin as a diagnostic agent has given practically the same results. We have only to remember the work of the Austrian military surgeon, Franz, who found, on testing a large number of men that had passed rigid examination for entrance into the army, that 66 per cent. reacted positively to the subcutaneous injection of tuberculin.

Tuberculin is the only means we have for diagnosing this disease early and regardless of the location of the lesion. In order to diagnose every infection as soon as possible after it takes place, it would be necessary to subject all the children annually to a tuberculin test until they react. Now, if we stick to the strict interpretation of the term "early diagnosis" and subject every individual in whom this diagnosis could be made to treatment, we would have from 60 to 90 per cent. of all persons over 15 years of age in sanatoria or under treatment at home at some time or other. Therefore instead of speaking of the "early diagnosis" we should do better to speak of the "accurate" diagnosis of pulmonary tuberculosis.

Before going on to mention the physical signs, their causes and significance, it were well to consider briefly the gross pathology of this disease, because there are certain definite laws governing the formation, growth and progress of tuberculous lesions. In speaking of the pathology of pulmonary phthisis, we must also consider the mode of entry of the tubercle bacillus into the body because this determines in a measure the place and nature of the pathologic changes which take place in the lungs.

In this respect there are a number of conflicting theories, all of which have able and enthusiastic supporters and none of which has been universally accepted by investigators as the right one. There are the following possibilities, each of which has been advanced as the method by which infection takes place: first, direct infection by inhalation of tubercle bacilli into the lung tissue itself; second, ingestion of material containing virulent bacilli with articles of food, absorption of bacilli by the lacteals of the intestine, and eventual lodgment in the lungs, after having traversed the thoracic duct and gained access to the blood stream; third, infection of the tonsils or cervical lymph glands, and direct extension to the apices or to the bronchial glands; fourth, inhalation of bacilli into the bronchi, infection of the bronchial glands and extension into the lung tissue along the lymph channels, either by means of a retrograde lymph flow or in the form of an ascending lymphangitis.

The first mode of infection, the so-called aerogenous mode, has its ablest exponent in Cornet of Berlin, who sacrificed almost 6,000 guinea-pigs and rabbits in his work to prove this. Koch, who discovered the tubercle bacillus, was also an adherent to this theory. It is the most logical and the most probable.

The second possibility, the intestinal route, finds many supporters among the English and American workers. Calmette of France and his school brought this theory forward several years ago and are its most vigorous defenders. There is no good reason to believe that bacilli, in the majority of cases, are taken up into the body from the intestines, instead of gaining entry directly through a portal that is always open. Under unusual experimental conditions this mode of entrance has been demonstrated in animals, but these conditions will rarely, if ever, be met in the human subject. Experimentally it takes, as nearly as can be estimated, 5,000,000 bacilli to infect a healthy guinea-pig from the intestinal tract, where one or two will produce an almost fatal infection when injected under the skin, and where a very few when inhaled will produce this disease. Bacilli lodging in the lungs from the blood stream should show no preference for any part of these organs. This is clearly shown in the findings in general miliary tuberculosis, where the tubercles are distributed evenly in number throughout the lungs, whereas the chronic pulmonary tuberculosis almost invariably is restricted to the apices except where the disease is advanced.

It is impossible here to go any further into the details of the experimental work done along this line. In this connection it is interesting to note that Villaret of Paris in 1862 claimed that particles of dust find their way into the lungs in this manner to produce anthracosis. In 1884 Mendelsohn remarked, in a work on the relation of traumatism to tuberculosis, that this theory of Villaret's, which could also be advanced to explain the mode of entrance of tubercle bacilli into the lungs, had long been discarded. Arnold of Heidelberg, in 1885, in a classic monograph on dust inhalation, once and for all proved the fallacy of Villaret's statement.

The third possibility has its most enthusiastic adherent in Aufrecht of Magdeburg. The anatomical, pathological and experimental researches of Most and Beitzke have, however, shown that there are no connections whatsoever between any of the cervical or peritoneal lymph channels and the lungs or bronchial glands. This mode of infection is therefore anatomically impossible.

The fourth possibility is so nearly like the first one that a discussion of it really belongs to that of aerogenous infection. It is only recently that the importance of the bronchial glands began to receive proper recognition, and this largely as a result of the roentgenological observations of the past few years.

Now why do the tubercle bacilli show such a marked preference for certain parts of the lungs? and what are the parts most often affected in the beginning of this disease? We know from the investigations of pathologists that the small lesions almost invariably found in every adult body at autopsy are most often in the upper posterior median part of the right lobe. The tip of the upper lobe, the true apex, is not so often the seat of these small lesions. Very often, of course, one finds small hard nodules, the remains of healed and later calcified tubercles, in other parts of the lungs, especially near the hilus, the so-called kernel of the lungs.

Freund in the early fifties made the statement that a deformity of the upper thoracic aperture, caused by ossification of the cartilage of the first rib, interfered with the ventilation of that part of the lung which protrudes through it, and that this predisposed to an infection at this place. In recent years Hart did a large amount of pathological and roentgenological research to support this theory. Although there is a degree of truth in this statement as we shall see later on, the thorax paralyticus is not found often enough to explain the immense number of apical lesions with which we have to deal.

Birsch-Hirschfeld found, by making careful observations in several thousand autopsies, a number of cases in which there was a lesion in the mucous membrane of the bronchus apicalis posterioris, or in the lung tissue immediately surrounding this bronchus. He argued that the sharp angle this bronchus makes, where it joins the main bronchus on the right side, was in some way responsible for the lodgment of the bacilli in this place. We know that the corresponding bronchus on the left side joins the left main bronchus at a much more obtuse angle than the right.

Schmorl was able to demonstrate a depression in the lung where it touches the first rib, in a number of cases, and believed that this interfered with the circulation at this point and thus predisposed to an infection. This finding of Schmorl's gives support to the theory of Freund and Hart.

Tendeloo, in a most interesting series of studies into the causes of diseases of the lungs, evolved some ingenious theories which are probably the most nearly correct of all of them. He showed that the rapidity of the blood and lymph circulation depended directly on the degree of mobility of the different parts of the lung. That is, the lateral basal portions are the most mobile, whereas the paravertebral apical parts are the least movable, in the movements of respiration. Therefore the circulation of blood and the flow of lymph toward the bronchial glands is slowest in the paravertebral apical regions. He held that in the parts where the flow of blood and lymph is rapid the bacilli are washed into the bronchial glands and there either destroyed or held latent. It is a fact that, now that attention has been called to these things, other men are reporting findings which confirm Tendeloo's opinion.

If the bacilli are inhaled directly, and a place found where they can lodge and multiply, or if they are deposited on the mucous membranes of the bronchi, find their way into the bronchial glands and from there get into the lung tissue, it is most invariably the rule that they get into the least movable parts of the lungs to cause disease. Of course, this refers to the ordinary chronic pulmonary consumption of adults, and not to tuberculous pneumonia, miliary infections of the entire lungs or of any one part. Further, when extension takes place the processes extend, except where sputum is aspirated into the lower lobes, along the line of least resistance; that is, into the less movable parts. I myself made a series of investigations extending over a year and a half, with a large autopsy material at my command, and found nothing which could in any way disprove this theory.

It is absolutely important to bear these facts in mind because they determine the places in which we must expect to find lesions, and the manner in which we shall go about making our physical examination. We must remember, too, that only the cortex of the lung, that is, to a depth of about 2 or 3 centimeters below the surface, is accessible to our physical examination.

The point at which the largest number of cortical lesions is found at the autopsies is at the upper median posterior portion of the upper lobe of the right lung. Therefore, our examination must be so carried out that the area along the spinal column, at the level of the first to the fourth dorsal vertebra, can be most carefully gone over and compared with the other parts. I prefer to begin at a point where I am reasonably sure of finding normal conditions, that is, at the base of the lung around toward the axilla, and then go slowly up to where I might find pathological conditions. In percussion no two thoraces have the same normal tone, and without knowing what the normal is we cannot by comparison expect to detect any slight abnormalities.

I usually examine the back first, percussing from the lower border of the lung upward. Having ascertained the lower limit of the dulness or impairment of resonance at two or three points, I percuss from the outside toward the spinal column and outline the area laterally. By doing this I do not miss any abnormal conditions such as pleuritic scars, etc., which sometimes are found at the bases. It might also be in place to remark here that in normally formed chests a beginning tuberculous lesion of any size except a tuberculous pneumonia or a pleurisy is never found at the base of the lungs. During the examination I find it of great help to have the patient sit with his hands on opposite shoulders, elbows as closely together as possible, and with the head and shoulders bent forward. In this way the scapulæ are rotated outward and got out of the way.

In regard to the technic of percussion, I have found it best to lay the pleximeter finger rather firmly on the surface of the body, and then use a grade of percussion that ranges from very light to moderately heavy.

Many men hold that in order to practice the so-called deep percussion it is necessary to percuss very heavily. I have found that with moderate percussion and rather firm pressure of the pleximeter finger any lesion accessible to physical examination can be brought out. Deep-seated consolidations unless of very great extent cannot at all be demonstrated by physical examination.

The shortening of the apical isthmus first described by Kroenig is by this method of percussion not so apparent in the beginning lesions. It is only after considerable scar tissue formation, with its subsequent contraction, has taken place that this shortening is apparent. This apical isthmus, it should be remembered, is a projection onto the surface of the width of the lung where it passes through the upper thoracic aperture. Cases are occasionally found which show physical signs at the level of the second or fourth dorsal vertebra, in which the apices are still free and the apical isthmus is normal in extent. I believe that these are the earliest lesions we can demonstrate by physical examination.

It is often claimed that the pleximeter finger can feel a change in the resistance of the parts percussed, the so-called touch percussion of Ebstein. This, I believe, is more subjective with the examiner than actual fact. One has only to stop up his ears with a litle wax and shut his eyes while percussing to discover that only the extreme differences such as will be found between the two sides of the chest, when there is a large pleuritic exudate on one side, can really be felt.

Of the "light touch palpation" described by Pottenger I can say nothing since I have had no success whatever with it. I believe again that this is a thing too liable to subjective influence on the part of the examiner to be of any value, except in the hands of a very few.

Ordinary carefully carried out percussion is really the only way to outline a change in resonance. I have dwelt at some length on this point because I believe that this is one of the methods of physical examination at which it is most difficult to acquire skill.

In the very early lesions there is often little change in the breath sounds and when the lesion is close to the hilus the nearness of the large bronchus makes it extremely difficult to detect changes when they exist. The presence of râles where an extensive bronchitis can be ruled out is an almost certain indication of the collateral inflammation which always exists around active foci however small they may be. It is generally accepted that slight changes in the breath sounds, either decreased or increased breathing or prolonged expiration coupled with the finding of small dry râles, ordinarily indicate a tuberculous lesion. Often when râles cannot be brought out on deep breathing a slight cough followed by a deep breath will show them.

In small-sized lesions an increase in the vocal fremitus may not be found. On auscultation, the transmission of the whispered voice is greatly increased where even small infiltrations exist. This is also a very good method for outlining the boundaries of cavities.

The retraction of the supraclavicular and infraclavicular spaces does not occur until some degree of formation of scar tissue that is healing has taken place. The same can be said for impairment of mobility on respiration and retraction of the ribs. Baccelli described a condition which is fairly frequent with beginning acute lesions. This is decreased mobility of the scapula on the affected side on deep respiration.

One sign not often mentioned in text-books is tenderness to pressure of the muscles overlying that portion of the thorax which covers the lesion itself. This is present in about 80 per cent. of the cases especially where the disease is acute. Any acute exacerbation of the disease and also a constitutional tuberculin reaction causes an increase in this tenderness. Patients will often complain of rheumatic pains in the shoulder and scapular muscles which are especially noticeable preceding any marked barometric changes.

One very reliable indication of tuberculosis is the afternoon or evening rise of temperature. This is an almost invariable occurrence where there is any active trouble. Occasionally the patients will show a rise in temperature in the mornings followed by a drop to normal in the afternoons, the so-called reversed curve. Ordinarily measurement of the morning or early afternoon temperature is worthless for diagnosis. By measuring at 4, 6 and 8 o'clock in the evenings, any fever can usually be detected. The patient should, as a rule, hold a thermometer in his mouth at least five minutes. Some tuberculous individuals' temperatures register very slowly. Often with this rise in temperature one can notice a flushing of the cheeks, and especially the cheek on the same side as the lesion.

It is a mistake to wait until the microscopic examination of the sputum demonstrates the presence of the bacilli before making a diagnosis. Very often in the beginning of the disease bacilli will not be found in spite of the fact that râles may be heard on examination. As mentioned above, the collateral inflammation around active foci can cause râles long before the bacilli can be found. By waiting until the microscopic examination makes the diagnosis absolutely certain, very valuable time may be lost, and the prognosis is much worse.

One of the most important means of diagnosis we have at our command is the *x*-ray. I consider this just as important as the physical examination and an absolute necessity where any degree of accuracy is to be obtained in our diagnosis. Any infiltration or scar tissue tends to retard the rays as they pass through the body, regardless of whether the lesion is near the surface or deep-seated. By this method all the infiltrations are always shown on the plate or fluorescent screen. It is impossible here to go into any detailed discussion of the *x*-ray technic. I mention this, however, because it is an invaluable aid, and in conjunction with the physical examination ought to be employed very much more than it is.

This brings us to the discussion of the tuberculin as a diagnostic agent. As I remarked above, practically 90 per cent. of our population are tuberculous before the eighteenth year of their lives. This hinders us from using this means of diagnosis very extensively. In children up to the sixth or possibly eighth year it is very valuable, because then a reaction would indicate a more or less recent and probably active lesion. It will not, however, give us any clue whatever as to the location of the lesion. When the physical signs which indicate the presence of this disease are found it is useless and in some cases even dangerous to apply the subcutaneous tuberculin test.

The ophthalmic reaction is not employed so often as formerly. Occasionally severe inflammation of the conjunctivæ are seen following the use of this method and it is being gradually discarded. The eye is too valuable an organ to expose to any unnecessary danger. The von Pirquet cutaneous method is very reliable and convenient in children. In adults it has the same limitations as other tuberculin tests.

There are no serological reactions which are of any value as a means of diagnosis. The agglutination reaction has not proved to be of any practical use. It is an aid in watching the effects of specific treatment but is altogether too unreliable for diagnosis. The same can be said of the precipitin reaction and the diversion of complement as used in the Wassermann test. The English physicians still place great reliance on the estimation of the opsonic index for diagnosis. If any of these tests were constant and reliable, which they are not, they are much too sensitive, and therefore are open to the same objections as the tuberculin tests.

We have, then, our old and tried methods of examination as the real basis of our means of diagnosis. Percussion and auscultation skilfully and carefully carried out will, except in extraordinary cases, give us sufficiently accurate results in connection with careful attention to the history of the case and the patient's statement of his own ailments. I wish, however, to lay particular stress on thoroughness and care and the skill which only comes by long and diligent practice. In addition to this, whenever it is possible, the *x*-ray examination should confirm or add to what has been demonstrated physically.

THE DIAGNOSIS OF SYPHILIS *

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The diagnosis of syphilis is made, first, from certain well-defined clinical symptoms which appear usually in regular order; second, from finding in the blood-serum the organism of syphilis; third, by the therapeutic test, and finally, fourth, by the blood-serum test of Noguchi and Wassermann.

In order to acquire syphilis one must not only come in contact with a syphilitic, or articles which have been used by a syphilitic less than about six hours previously, but he must have the normal body covering broken, which will allow an entrance to the living organism of syphilis.

The infection may take place on any portion of the skin or mucous membrane. In the male, 66 per cent. of acquired venereal syphilis, the point of infection is the glans penis and prepuce, and of this 66 per cent. by far the greater number is in the coronary sulcus and the mucous skin immediately behind. Other points of entrance in their order of frequency are the skin on the shaft of the penis, the scrotum, the body at the root of the penis, and the urethra.

In venereal syphilis of the female the points of infection most frequent are the labia minora, the clitoris, the fourchette, the cervix and the anus.

In the extragenital syphilis in the male, the chancre is found most frequently on the fingers, the lips, the tongue and the tonsil. In the female the lips, the fingers and the tonsil.

The Chancre.—The typical venereal lesion of syphilis is seen first as an erythematous spot, shortly after becoming a superficial papule which later becomes eroded. This gradually extends in size and in the course of a few days becomes indurated and circular, red in color, and the edges are slightly raised and the center somewhat depressed from central necrosis. It causes neither local nor constitutional symptoms and is usually found by accident. It makes its appearance in from ten days to six weeks after exposure.

In different locations the typical chancre is slightly modified: as on the prepuce where the capillary circulation is parallel with the surface the induration is thin and abruptly ends in normal tissue, while in the coronary sulcus and glans penis, the lips, the tonsil and the fingers the induration is deeper, the inflammation more intense and gradually shades off into normal tissue.

The initial sore is frequently atypical in that the induration may be entirely absent. The sore may have the appearance of a shallow ulcer, with a thin parchment-like base, scarcely perceptible to touch. These are very rare.

Chancres are sometimes complicated with chancroid and their true character escapes notice until the chancroids have completely healed, or secondaries make their appearance. Multiple chancres are said to occur in about one case in ten. This is probably too great a percentage.

In a chancre of the body-skin the lesion is usually much greater in size, the necrosis more extensive and its area of inflammation far beyond that of the induration. It is usually covered with a dried serous exudate and lint from the patient's clothing. A scrotal chancre has both the appearance of a preputial chancre and also the skin chancre — the ulceration is shallow with thin, parchment-like base, and is covered by a dried crust of serum.

The urethral chancre is one which is very apt to escape detection. The slight pain and discharge may lead one to suspect gonorrhea; even when the microscopic examination has eliminated gonorrhea, the condition may be diagnosed as an acutely inflamed anterior stricture, and its true character not made out until the secondary symptoms appear. When a urethral chancre is located in the glandular urethra it usually extends in a short time to the meatus and its diagnosis is soon made by stains or dark field examination.

Chancres of the cervix cause very little inconvenience and are infrequently seen. They are seldom searched for until the secondary symptoms appear, at which time the chancres may be healed, leaving no scar, as a rule.

Chancres of the anus assume the form of a slight fissured induration, but are far less sensitive to touch than a true fissure of the anus.

The local treatment of any kind helps us very little in the diagnosis.

At the time or very shortly after the appearance of the initial sore, the lymph vessels leading to the nearest lymph glands may be found underneath the skin in the form of a fine beaded chain, and they are not tender. The nearest lymph glands now become enlarged, indurated, easily movable, but do not break down unless complicated with a mixed infection.

This primary lymphatic induration and enlargement, together with the development of the initial sore, make up the primary stage of syphilis.

Another method of diagnosis in the primary stage is in the finding of the organism of syphilis, the *Spirochæta pallida*. These may be demon-

* One of three papers comprising a "Symposium on Syphilis," read before the Indiana State Medical Association, at Indianapolis, Sept. 28, 1911.

strated in the initial lesion from its first appearance as a papule or erosion in the primary glandular enlargement. These organisms may be seen alive and active by the dark field illuminator, and studied for some hours after the specimen has been collected. The dried specimen can be stained and studied at leisure by any one who has had reasonable laboratory experience.

The fact that under all conditions, primary, secondary or tertiary lesions, dead or living, the spirochete usually maintains its characteristic shape, the undulations regular in size and unchanged, makes it easy to be distinguished from other spirilli.

In collecting a specimen for dark field illumination, the lesion should be kept free from all antiseptic washes and powders for some days, only water used to maintain cleanliness.

The lesion should be scraped with a small, sharp curet until the upper layer of cells is removed. When the capillary hemorrhage has ceased the lesion is squeezed between the fingers until a drop of serum appears, which can be collected for examination at once for the living spirochete or dried and stained. The lymph glands may be aspirated and serum examined or stained, and if the *Spirochæta pallida* is found the diagnosis of syphilis is absolute.

The therapeutic test should never be used to diagnose primary syphilis.

The Wassermann reaction in primary syphilis becomes positive in from three to fourteen days, usually, after the appearance of the primary lesion, and is of great value in the confirmation in those rare cases when one has failed to find the organism.

By these three methods of examination it is hardly possible for one to err in the diagnosis, and this may be made days and perhaps weeks prior to the secondary symptoms, and thus save the patient days of mental suffering from an uncertain diagnosis, and save weeks or months in treatment.

The secondary symptoms are usually an acute toxemia followed immediately by polymorphous skin lesions. These lesions appear over the chest, abdomen and back, sometimes extending to the arms and thighs, seldom on forearm and legs or face. They rarely cause the patient any physical discomfort and he is frequently not aware of their presence. At the time or immediately following, there is more or less pain in limbs, head and bones, and in the mouth will likely be found mucous patches. These lesions are not destructive and do not undergo caseation. They heal spontaneously. Secondary lymphatic enlargement, that is, general lymphatic enlargement, now occurs and we will find the postcervical glands over the mastoid process and epitrochlear glands quite prominent. *Alopecia occurs somewhat later and is not of sufficient importance to be noted.* These symptoms will persist for from two weeks to two months or more.

The later secondary skin lesions are usually a relapse of the earlier secondary lesions of the skin and mucous membrane. The late secondaries of the mucous membrane are found in 65 per cent. of all cases before the sixth year of the disease. Condylomata are rarely seen after the third year. These symptoms and a few rarer ones may heal spontaneously and recur at irregular intervals for three years or longer as a rule.

In the secondary stage of syphilis the dark field illuminator and the Wassermann test will prove of the greatest help in diagnosis. A number of secondary syphilids are prone to run an atypical course and our clinical symptoms may be so in doubt, especially in the absence of a clearly defined primary stage, that a clinical diagnosis cannot be made with any accuracy. In this stage spirochetes may be found most frequently in the tonsil apparently healthy, in condylomata, the mucous patches, skin lesions, and large lymphatics. The Wassermann test is especially valuable, and the percentage of plus reactions is in early and late secondaries as large as 95 per cent. or more.

The therapeutic test has no place in the diagnosis of secondary syphilis for the reason that the lesions tend to spontaneous recovery and that mercury and potassium iodid affect other diseases which simulate syphilis.

The line of demarcation between the so-called secondary and tertiary stages of syphilis is not well defined. Some authors define tertiary lesions as those which appear after a certain time has elapsed, from the appearance of the secondary stage. There are so many exceptions to this rule that any time limit renders it of no value. Frequently we see secondaries as late as nine or ten years, and Keys reports five cases of secondary relapses from twenty to thirty years after the occurrence of the chancre. We also may see tertiary symptoms following immediately the primary stage.

The diagnosis of tertiary syphilis becomes relatively more difficult by every method except the therapeutic, the longer the time has elapsed from the secondary stage. The chief clinical difference is that the skin lesions in the tertiary stage make their appearance most frequently in the second and third years, and the relapses occur with greater frequency in the secondary. The tertiary lesions are localized, show little tendency to heal

spontaneously, but spread usually in a circular manner to the surrounding tissues, destroying them and leaving a scar on healing.

The demonstration of spirochetes in the tertiary lesions is more difficult on account of their lessened number and the failure to find them in lesions apparently specific proves nothing. The Wassermann test is far less reliable than in the secondary. While the percentage of positive reactions is somewhat reduced, the Wassermann test should always be used. A negative reaction does not prove the lesions to be non-specific. The therapeutic test becomes a valuable aid when other methods of diagnosis fail in tertiary lesions, and should be used only for diagnosis, and only in this stage and not until other methods have failed.

The Wassermann test may be influenced and be positive in other diseases as yaws, sleeping sickness and leprosy, happily not found in this climate.

The diagnosis of congenital syphilis is made first by the characteristic appearance of the child at birth and previous specific history of parent. In any syphilid appearing at birth the *Spirochæta pallida* can be demonstrated, and it may be found in the tonsil of the apparently healthy newborn child.

The Wassermann reaction is far the most reliable, and the positive percentage is higher than in any other period, being 100 per cent.

The farther we get from the secondary stage of syphilis the less we can depend on the finding of the living organism of syphilis. It is infrequently found in the early tertiary, and in the later tertiary periods the difficulties which must be overcome make it of no value in diagnosis.

The *Spirochæta pallida* rapidly disappears from any lesion when antiseptics are used, and they become extremely hard to find after a short course of mercury. They disappear entirely from the lesions after one injection of salvarsan, as early as twelve to seventy-two hours.

Recent statistics show that the Wassermann test will be positive in 93 per cent. of gumma: from 90 to 95 per cent. of paresis; from 70 to 85 per cent. of locomotor ataxia: and from 50 to 75 per cent. of brain syphilis.

In bringing together these few points on the diagnosis of syphilis in the different stages of this disease, I have purposely omitted many prominent clinical symptoms.

It is unnecessary for me to take your time going over lesions which you all know, but I have tried to show at what periods of syphilis the different methods of diagnosis are applicable, and when properly used no case of syphilis should escape detection.

I have quoted freely from Keys, Gaurbkin and others, all of whom follow the same method in the diagnosis of syphilis in the different stages of the disease.

THE SOCIOLOGICAL ASPECT OF SYPHILIS *

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The sociological aspect of syphilis is a question of state concern, for syphilis not alone deteriorates the state's own subject and his progeny, but the latter on account of their syphilitic degeneration help to fill the state institutions, thus bringing a monetary factor into play.

Man's ungovernable lust for things sexual is well illustrated in Michelangelo's classic carvings showing how Rome took by force and ravished the women from the Sabine tribe; and, strange as it seems, those women enjoyed the insult to their virginity. To-day the girl is kidnapped into seduction with a bit of fine wearing apparel, an auto ride or a pretended love.

Our lowest animal's sexual relation compared to man's would leave a blot on the human kind that would beggar description. Man's sexual debauchery has no definition defining its degradation. It is found in good, bad and indifferent people — the upper stratum as well as the lower stratum. It is astounding to note the number of "scarlet letters" that are exposed after the clothing is removed.

Men claim themselves to be the stronger sex. Outside of sexuality that may be true, but from a sexual standpoint if woman were not the stronger — a virtuous woman would be hard to find inhabiting the universe to-day. "No man will have the hardihood to deny that one woman of average looks, grace and manner can seduce, overcome and lead into forbidden paths fifty men, to every woman that any one of the fifty men can subordinate to his passions."

As has been said, "perhaps it is to this that we owe the laws for the protection of *weak young men, and still weaker old men,* who lack the power of continence and bow down to the shrine of Venus, where her altars are served by the débris of our rotten civilization and have thus inoculated the currents of their lives, poisoned the source of existence and added physical degeneration to social and civic rottenness."

These statements may seem severe and pessimistic. That may be true, for no doubt there are

* One of three papers comprising a "Symposium on Syphilis," read before the Indiana State Medical Society, at Indianapolis, Sept. 28, 1911.

many people, especially in the rural districts, who are not applicable to the stigmata, yet, taking authentic statistics into account one would logically conclude even more severely. Eighty per cent. of all men have had gonorrhea. Seventy per cent. of gynecologic operations have gonorrhea as an etiologic factor. Syphilis is not included in these statistics yet it is a companion disease. This would lead one to believe that all men have been at some time contaminated venereally except "Thee and Me" — and I have my doubts about "Thee."

The question how to prevent men from contracting the disease seems to be as difficult to-day as it has been since time immemorial. As a prophylaxis probably the use of calomel ointment is as easily applied and efficacious as any other way.

For the treatment of the indigent poor a department of venereal diseases in a state hospital should be provided, or better still, a government hospital for venereal diseases should be instituted whereby all patients are under absolute control. These patients should receive their admittance by Wassermann positive test, and should not be discharged until repeated Wassermann negative has been shown. In the latter scheme we would be patterning after the older countries who have had a longer experience in the management of this disease than we. It is markedly necessary for this class of patients to have the benefit of the valuable laboratory diagnostic work and thorough surgical treatment, such as the intravenous salvarsan injections, that otherwise would be deprived them on account of poverty.

Fate has seemed more cruel in dealing with syphilis than with any of the other diseases from which the human race suffers. What exhibition of pathos is more pronounced than to see an innocent child scourged on account of the sins of his parentage, with this most loathsome disease!

Within the year the writer has heard the statement from good authority that a Wassermann positive always occurred from the progeny of syphilitics, thus overthrowing Profeta's law, or all laws of immunity. Fortunately this statement has been proved erroneous.

The question of a segregated vice district is always a debatable one. Personally the writer is rather inclined to consider that kind of a district as a necessary evil and as a prophylaxis against probable injury to our virtuous girls.

It is the writer's opinion that the present publicity education concerning venereal diseases, for the time being, is a detriment rather than a benefit to humanity. It seems to have awakened sexual action in some minds that otherwise would have remained dormant. When, however, the education finally permeates the mind sufficiently to show the dangers of inoculation and the necessity of self preservation of the body against syphilis, then the good will have been done on account of education.

A recent education which the laity has been receiving through the newspapers that is likely to do harm rather than good was the announcement of the Ehrlich-Hata salvarsan discovery and its overstimated beneficial possibilities in the treatment of lues. The consensus of public opinion is that a single injection of the drug will completely eradicate syphilis almost instanter, and our "quack" brethren are "advising" the people that that is so. This belief will tend to eliminate syphiliphobia and might invite greater hazards to be taken.

While salvarsan is a great boon to the treatment of syphilis, yet unfortunately it has not proved itself to have reached even the expectations of our most conservative men. The writer a short time ago had the privilege of receiving the following answer to the following question asked one of our greatest syphilographers, Professor Finger, of Vienna:

Q. Is it possible to entirely sterilize the body from the syphilitic spirochete by the use of salvarsan (Ehrlich-Hata "606")?

A. No.

So we must educate the people that "606," mercury and plenty of time are still necessary for a cure.

The question of marriage when lues is present is almost entirely in the hands of the attending physician. A law against such a union is good to have for the purpose of appeal if necessary, but it is preposterous to expect the physician to expose his patient, who perchance is financially well off (for syphilis and plutocracy are said to run hand in hand) and thus deprive himself of his daily bread by receiving the condemnation of his patient and his patient's friends. It should be the duty of every medical man, in spite of any financial or social loss, to protect the innocent against inoculation.

The following is a fair example of the type that needs the most control in marriage: a man of the town, "sporty," a "rounder," as he is called, who has an Hunterian battle scar on his scabby, pock-polluted person, generally selects, especially if he be well-fixed financially, a virtuous girl in marriage. The physician's duty is to prevent this marriage in spite of all obstacles, until the man has a scientifically clean bill of health.

I know of no human tragedy more appalling than the blood of a ruptured hymen bathing the syphilitic virus from a whoremonger who has

procured his victim by way of the laws of matrimony.

The responsibility all rests with the medical man and he is a veritable coward if he fails to protect the innocent.

THE TREATMENT OF SYPHILIS *

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The treatment of syphilis has evidently occupied the minds of physicians and been a subject of perplexity for many years. Clinicians, chemtherapeutists and syphilologists have been trying to discover a real specific for the disease.

We are told by Hamonic that syphilis dates as far back as 1921 B. C.; and he intimates the manner in which its possible occurrence takes place by referring to the bible story of Abraham and his beautiful wife Sara visiting Pharaoh, at which time Pharaoh appropriated Abraham's wife, and thereupon a great plague was visited on Pharaoh and his wives and all his officers. Pharaoh then returned Abraham's wife to him, and with reproaches dismissed Abraham. I presume that Pharaoh, much perplexed, sought immediate treatment for his malady which we are prone to think was syphilis.

The treatment of syphilis is so varied, and in many instances so complicated, that to speak of all of the forms of treatment will be taking time unnecessarily. For brevity, we will discuss the subject under two divisions: (*a*) practical, and (*b*) theoretical and experimental. Under the head of practical, I choose to follow the treatment recommended by such syphilographers of the world as Fournier, Hutchinson, Kaposi, Neuman, Mauriac, Taylor, White and many others who favor medication by mouth and inunction, rather than hypodermatic medication as advocated by Horwitz, Wolf, Straus, Balzar, and even Ehrlich and Hata. The latter two I would class as advocates of the theoretical and experimental treatment.

In a very able paper just read you have heard of the diagnosis and etiology of syphilis. Those of you who attended the Fort Wayne session of this Association may recall the paper read by W. T. Mefford of Chicago, in which these words were used: "No man is competent to treat lues who does not make use of the test-tube and microscope, or take advantage of others' laboratory work." If the statement be true then many of you physicians with years of practice, and who have never possessed a microscope, ought, perhaps, avail yourselves of such paraphernalia as recommended, before attempting to treat syphilis, for without a microscope you will be unable to find the *Spirochæta pallida*, the supposed cause of syphilis, and which "animal" has many times been found in frambesia, leprosy, scarlet fever, tuberculosis, carcinoma and malaria.

With what are we to deal in treating syphilis? Is it the spirochete alone, or some other septicemic conditions? I propose that it is one of septicemia from an infection of an abrasion by an escharotic secretion, and that the septicemia is chronic and constitutional. I would therefore advocate an eliminative treatment that is practically continuous over a prolonged period, with but short intermissions.

Since it is a physiologic fact that circulating infectious material tends to flow to the secretory ducts, as evidenced in parotitis, orchitis, etc., which accompany infectious diseases, it is then a good and practical treatment to use such medication and treatment as will stimulate the eliminative or excretory functions. It has long been known that such effect is best attained with mercury; not by its germicidal or any bio-chemical effect in the blood, but by elimination through the excretions. One and three-quarter grains of protiodid of mercury daily for two months many times causes the entire disappearance of the syphilitic symptoms. Because syphilis healed from syphilis latent is difficult to distinguish, and a chronic ailment always demands a chronic treatment the mercury treatment should be continued for two to four years, with occasional intermissions or rests of six weeks each.

Another form of treatment which has given good results is the inunctions with mercurial ointments. While it is customary to apply the ointment on the inner sides of the thighs and legs with much friction, and with small children to apply the ointment on the sides of the chest, I think that the effect of the inunction with adults is better following a hot-air bath whereby the perspiratory follicles are opened and receive the inunction with greater rapidity and less degree of friction.

Sulphur baths in conjunction with mercury are an excellent adjuvant, and they also are more effective following a hot-air bath. The hot-air baths do not promote the elimination of the syphilitic virus but they facilitate the absorption of the medication.

The arsenical preparations such as liq. arseni et hydrg. iodidi (Donovan's solution) in doses of 5 minims, or liq. potassi. arsenitis (Fowler's solu-

* One of three papers comprising a "Symposium on Syphilis," read before the Indiana State Medical Association, at Indianapolis, Sept. 28, 1911.

tion) in doses of 5 to 10 minims, three or four times a day, is an excellent assistant to mercurial treatment.

Of the local applications I have found the chancre to yield in from three to eighteen days to a mixture of chloral hydrate, five parts; camphor, three parts; and glycerin, twenty-five parts, applied by pledgets of cotton. Good results are also secured by lightly touching the chancre once daily with lunar caustic, or a solution 1 to 20 nitrate of silver, and dusting with bismuth subnitrate.

Iodid of potassium has long been used in connection with mercurial treatment, and much good comes from it in the relief of osteocopic pains. It has failed to produce results at times, possibly because it has been used early in the treatment and before the systemic conditions are in readiness for it; or the dosage is made too large for stomachic tolerance, hence lack of systemic assimilation. Fournier recommends its use in the third year, 45 grains daily, and Lane uses it early with calomel fumigations, 2½ to 5 grains, three times daily. I believe Fournier's method the better.

Stimulated by the practices of European theorists, whereby drugs, serums, etc., are administered hypodermatically for diagnoses and cures, many syphilologists of our country are treating syphilis by the hypodermatic use of calomel, bichlorid of mercury, peptonate of mercury, mercury salicylate, etc. Each one of these experimenters is trying to tell you and me just how to give the injections so that pain will be evaded. Some recommend an alkaline solution, and others a neutral solution. Horwitz thinks his patients have less pain than others by his using equal parts of absolute alcohol in his 3 per cent. solution of sublimate of mercury. All of them use morphia as a sure relief.

The pendulum governing treatment has now swung past the center of conservatism, and now hangs away over to the side of "606," if we are to judge by the recent literature on the subject. It has gone over to experimentation. Not long since I reviewed the recent literature on the new drug, and for me to quit this paper without saying something of salvarsan treatment would be giving this audience too much opportunity to tell it all in discussion.

During the last six years there have been four distinct advances in our knowledge of syphilis. First was the epoch-making discoveries of Schaudinn and Hoffman concerning the *Treponema pallidum* or *Spirochæta pallida*, said to be the causative agent of this disease of wide-spread dissemination; second, the recognition of this peculiar organism as facilitated by the dark-stage illuminator with azure stain of Giemsa and the silver nitrate method of Levaditi; third, the animal inoculation of apes by Metchnikoff and of guinea-pigs by Uhlenhuth, along with discovery of the Wassermann reaction which made control tests possible in persons affected with syphilis; fourth, and recently, Ehrlich and Hata of the Royal Institute for Experimental Therapeutics at Frankfort-on-the-Main, Germany, produce and advocate a synthetical compound which has been termed dioxydiamidoarsenobenzol, or "606," which number refers to the laboratory number of such experimental compound, and his later modification, hyperideal "606," both of which he claims greater in the treatment of syphilis than any former preparation like atoxyl, or arsacetin and arsenophenylglycin (418) as a spirillocide.

Paul Ehrlich is a ceaseless laborer in the study of chemo-therapy, and to-day perhaps stands as its greatest living exponent. Basing his efforts on the discovery of the *Spirochæta pallida* by Schaudinn and Hoffman, Ehrlich has for years endeavored to find a drug or compound that would be a *therapia sterilisans magna*, and believes he has it in the compound "606," or salvarsan, as known in the market. He has labored under the idea that "606" in one dose would be a *therapia sterilisans magna*.

The idea of the spirochete being a blood parasite has been proved erroneous, and the theory advanced that it is only a local lesion parasite, and by absorption enters the blood stream. Recent repeated examinations of the blood by Wechselmann, Lowenthal and Cannon seem to corroborate this conclusion. There are only a few authoritative reports in medical literature which prove the continuous presence of the spirochetes in the blood. These parasites settle in the tissues of the body, causing in some cases and at some time, as a rule, a local reaction; in other cases no reaction follows, hence no late lesions.

Consequently "606" in the hands of eminent clinicians has proved not to be a *therapia sterilisans magna*. But this is not saying that the drug is not a useful remedy. There are many reports that give reason to believe that it is a valuable addition to the means of combating syphilis. Salvarsan is a yellowish sulphur-like colored powder which contains 34 or 35 per cent. arsenic, and dissolves in water forming strongly acid solutions. Its chemical formula reads $C_{12}H_{12}O_2N_2As_2$. It is put up for use in ampules or glass phials (hermetically sealed) containing 0.6 grams.

The dosage is determined by the manner in which it is to be administered, whether

intravenously, intramuscularly or subcutaneously. For intravenous injection the dose is:

For women, 0.3 gram (4½ grains).

For men, 0.4 gram (6 grains).

In subcutaneous and intramuscular injections:

For adult males, strong constitution, 0.6, 0.7, 0.8, to 1 gram (9, 10½, 12 to 15 grains).

For women, 0.45 to 0.5 gram (3, 4, to 7½ grains.

Very enfeebled patients, 0.3 to 0.4 gram (5 to 6 grains).

For children, 0.2 to 0.3 gram (3 to 5 grains).

Suckling infants, 0.02, 0.05 to 0.1 gram (one-third, three-quarters to 1½ grains).

In the technic of administration the manner of preparing the drug is very essential and tediously difficult. The manner in which it is to be administered will determine the mode of preparation. For intramuscular or subcutaneous use it is prepared in the following manner: The contents of one ampule (0.6 gm.) is placed in a porcelain dish or mortar and triturated carefully with 9 or 10 drops of a 15 per cent. solution of sodium hydroxid. Then add, with constant stirring, at first, drop by drop, about 5 to 10 c.c. sterilized water. The fine suspension thus formed is tested with litmus paper frequently for neutral reaction. According to the litmus reaction, a drop of caustic soda or of dilute hydrochloric acid is added till the required neutrality is attained.

Wechselmann of the Rudolph Virchow Hospital used the glacial acetic acid instead of the hydrochloric dilute in compounding his mixtures.

Ehrlich originally advocated an alkaline solution instead of neutral mixture. Kromayer used a sterile liquid paraffin suspension.

It is claimed by many clinicians that the addition of normal salt solution renders the treatment less painful. Quantity to be injected shall be about 25 c.c. (6 fluidrams). A large sterile syringe of the Record type with good-sized needle should be used.

If intramuscular, the gluteal region is preferred, and the injection is made deeply, avoiding the sciatic nerve. Many operators prefer the locality of the tissues under the shoulder blade, believing that the injection there causes much less pain than in the gluteal region, and that it is easily accessible from a surgical view in the event of the development of arsenism. Patient to sit on chair, head resting on folded arms supported over back of chair, thus tissues becoming loose and easily punctured. Point of injection to be surgically cleansed and painted with tincture iodin. The drug to be slowly injected as in the use of diphtheria antitoxin. The needle should always enter tissue directed from above downward.

The intravenous method is thought by many to be the quickest and best method, and even Ehrlich changed from his original intramuscular to the intravenous idea, and now recommends it. If such mode is practiced, the suspension or dilution of the drug shall be increased to 250 c.c. (one-half pint), and the use of any good appliance for the infusion of blood may be used, properly sterilized of course.

In the Schreiber method a Hahn cannula needle (bayonet shape) of three-way cock construction, and a Karat syringe, connected with a special graduated jar by means of rubber tube, is used.

The Weinstraud method is more simple and consists of a long graduated cylinder attached to a jointed needle of sufficient caliber to give free flow, and the speed of influx of fluid is governed by assistant elasping inlet tube. After the injection and removal of the needle, the punctured tissue is covered with adhesive strip only.

Contra-indications to the use of "606" are very thoroughly included in the article written by Henry L. Elsner, M.D., professor of medicine, Syracuse (N. Y.) University, in which he denounces its use in sickness of any kind, particularly acute infections however slight, such as ordinary colds, bronchial disturbances and acute indigestions. Degenerative diseases of the nervous system, far advanced, not only contraindicate the treatment but offer great danger. Included in such degenerative diseases are paresis, locomotor ataxia, optic neuritis or any pathologic changes, the aged or any decrepit patient with cardiovascular disease, including arteriosclerosis, cardiovalvular disease, cerebral apoplexy, ascites.

It would be quite impracticable at this time as well as impossible to give all clinical reports on "606" since it was first heralded by Ehrlich, Hata and Bertheim as a real specific for syphilis. It must suffice here if I cite references wherein you may find many such reports.

Probably the greatest number of tabulated reports (or at least of which I reviewed) are given in the *Interstate Medical Journal,* October, 1910, pages 736-738, by Wilhelm Wechselmann, M.D., of Berlin, and pages 773 to 787 inclusive in same journal, by William Engelbach, M.D., one or two of which I wish I had time to read to you from the text: especially that report of Bohac and Sobotka as written on page 779 of the above reference.

From reviewing literature on this subject I am inclined to think that the practitioners are so often besieged by agents and literature of new preparations that before they have learned the use and results of one drug they abandon it for

another, much heralded, and do not become familiar with any. Many physicians are thus inclined to favor this "606," and to listen to German enthusiastic clinicians, and forget our own American clinicians' ability and recommendations.

Dr. John A. Fordyce, professor of dermatology and syphilology, University and Bellevue Hospital Medical College, says: "Without discrediting Ehrlich's discovery, we must not in our anxiety for a remedy which shall fulfil his ideal ignore the fact that mercury too yields results which sometimes border on the marvelous. Its action on the *Spirochæta pallida* is beyond question, and its rapidity is illustrated by Lambkin's observation that the organisms which were very numerous before, disappeared from the lesion in about two days after an intramuscular injection of 1 grain of metallic mercury." And he further says: "In addition to this direct action, mercury is believed to increase the alexins to neutralize the specific virus."

There is an increasingly strong evidence becoming manifest that salvarsan does not permanently and completely cause the destruction of the spirochete, the reversal of the Wassermann reaction, or the removal of the clinical manifestations of syphilis.

The hope of a *therapia sterilisans magna* is virtually abandoned, and two or three or more injections are being used, and the recommendation is finally being made that the use of salvarsan should be succeeded by the use of mercury, which is the most striking evidence that salvarsan is not equal to its lauded mission.

There is very good ground for the belief that a larger portion of serious accidents, imperfect cures, and by-effects are occurring than would be adjudged by the reports of German clinicians and American partisans. The fact that Alt, Neisser and others advocate the use of salvarsan, and claim for it beneficial and curative effects in paralysis, tabes, etc., proves to my mind its lack of specificity in the disease for which it is claimed a specific.

In conclusion I wish to enumerate some objections to the hypodermatic mode of treatment for syphilis. (1) It is painful, and in many patients excites apprehension, is bitterly objected to, and too the need of the administration of cocain or morphia, as so frequently advocated for relief of the pains caused, is in itself very objectionable. (2) It is occasionally dangerous and sometimes rapidly fatal. (3) It is very liable to be followed by certain local complications such as erythema, cellulitis, painful nodosities, abscess and sloughing. It is true that the percentage of these last-named troubles is small in reported cases, but you must remember that the bulk of the enormous literature on this subject has been contributed by partisans. (4) It cannot be carried out by the patient, but constantly requires the attention or intervention of the physician-surgeon.

However, if we are besieged by patients demanding hypodermatic treatment for their syphilis, as we are led to believe by the many reports mailed us complimentarily, I would suggest the possibility of as good results to be obtained by the daily injection, intramuscularly, of 30 minims of liq. potassi arsenitis, with mercury by mouth, as may be obtained by the use of salvarsan.

DISCUSSION OF THE PAPERS BY DRS. GARSHWILER, BARNETT AND RIDENOUR, COMPRISING THE SYMPOSIUM ON SYPHILIS

Dr. F. R. Charlton, Indianapolis: It would be perfect folly for me to attempt to discuss all the points brought out in these three papers, comprising the symposium on syphilis. There are, however, a few points that I desire to discuss.

My friend, Dr. Barnett, assumes that syphilis is a disease of the male sex, and that if in some way the aggressive attitude of the male sex could be modified, there would an end to it. It has been the custom to assume that the female is a sexless thing who is always imposed on. This is neither true nor scientific. This is a race problem, not a sex problem; one that has existed since the first history gives us any data, and it will never be solved by sentiment. Wherever you find a man suffering from syphilis, the chances are there is a woman somewhere afflicted with syphilis. Let the sexual impulses go on as Nature decrees that they shall, unless we may find some better way of providing for the procreation of the species. Sensualism is another thing entirely. It is a perverted sexualism, and with this we must deal frankly. To effect anything worth while in dealing with the subject it must be handled without gloves.

Personally, it seems to me there is just one reasonably effective solution in sight. We are already working for a national health organization with a chair in the cabinet, and perhaps when that comes about there may be something done with this question. We may get national laws by which we can handle the question of prostitution and indiscriminate relationships in a way that we cannot now. I do not see anything hopeful in dealing with it in any other way than by national legislation. There must be authority to control and authority to inflict penalties.

Commenting on Dr. Garshwiler's paper dealing with the diagnosis of syphilis, I want to emphasize the necessity of getting the history in suspected syphilis. I have had — and you have all had the same experience — many cases of

individuals coming with a history of syphilis, having had more or less lengthy treatment, where I was satisfied after some little talk that they had never been subject to syphilis. They have possibly had a few local lesions — and someone has put them on treatment at once. That sort of thing is inexcusable, of course. The history should deal with the length of time between the exposure and the primary lesion, whether the secondaries came out in the proper length of time, and whether the treatment has been adequate or not. I look on the taking of the proper history as one of the most essential points.

The proportion is tremendous of individuals who have been pronounced syphilitic, and who have acquired the fear of syphilis and will have it the rest of their lives, but who never have had syphilis. I have met with more than a few in the past year in which there was no evidence to indicate that they had ever had syphilis. This blunder is almost as pernicious as to make a mistake on the other side. You must get your history clear in all the details. To pronounce an individual syphilitic without good reason is criminally inexcusable.

Dr. Ridenour is not satisfied that the *Spirochæta pallida* is the cause of syphilis. As a matter of fact Noguchi makes a pure culture of the spirochete by a mixture of water and serum in which there is rabbit tissue. He transplants it again and again. He then reinjects the rabbit, and it invariably develops syphilis. The four postulates of Koch have been fulfilled. There is not any question of the *Spirochæta pallida* being the cause of syphilis. It is accepted all over the world. There comes a time, as has often been seen, when conservatism must step aside for facts. This is a proved fact, and the study of the *Spirochæta pallida* may give us more light than anything in the whole category of recent discoveries.

Dr. Ridenour does not seem favorably inclined to the intramuscular injection of mercurials, preferring internal medicine. Again, the intramuscular method is pretty nearly universally accepted. We are giving mercury in its metallic form as calomel or the salicylates, and we are getting good results all along the line. Moreover, we never give cocain or morphin to control pain. There is no particular pain at the time. Sometimes there is some little feeling as of a bruise twelve hours after. What is the advantage of this method over the old one of giving a man some medicine and sending him home to treat himself? The advantages are apparent on every side. In the first place, these cases should be kept in touch with in every particular. They should not be allowed to take care of themselves, because they do not do it. They should see the doctor once a week, and he should know what they are doing. He should be the judge, and not take anything for granted. Another thing, where patients get an injection once a week or ten days, we get results, for they get the medicine. The other way they take the medicine incidentally, when they think of it, too often forgetting altogether. I would rather give a patient six or eight months' treatment by intramuscular injections of mercury at regular intervals, than several years by the old method of mixed mercury and iodids internally taken when the patient felt so disposed.

Now as to salvarsan. I doubt very much whether there has ever been a drug in the history of therapeutics so extensively studied, experimentally and practically, as salvarsan. It is probable that Ehrlich has on file nearly 100,000 cases that have been treated. It is shown that there are no toxic effects from salvarsan. It is generally conceded that the eye does not suffer. There is only one complication, and that is in atheromatous conditions where blood-pressure is high and the vessel walls weak. It clears up certain malignant cases that never yielded to the old methods. I saw within the last month a perforation through the soft palate one-quarter inch in diameter, and general septic symptoms, where mercury and iodids had failed. I saw that individual two weeks after having been treated with salvarsan, when the wound was closed and he was to all intents and purposes well, and feeling better than he had in years before. That is the universal verdict coming in all along the line. Here comes a patient who has a mouth full of mucous patches, and who is a menace to his family. You give salvarsan, and in forty-eight hours there is no spirochete anywhere, and he can go home to his family without any fear of infecting them.

I look on it as a godsend, and I think everybody else does who knows anything about it.

Dr. A. M. Hayden, Evansville: I have often thought that the question of syphilis and gonorrhea — the social diseases — should be subject to the control of the police. All our states ought to pass laws putting the matter in the hands of the police. All prostitution should be under the control of the police. Women who follow this for a living should be subjected to tri-weekly examination by someone competent, and be kept in a condition so that they will not communicate the disease. Many men say this is the wrong thing to do — that we should not encourage prostitution at all: but we have it in our midst and we cannot annihilate it. It will go on as long as the world stands and male and female have sexual passions. For that reason I have always thought it should be under absolute police control.

As Dr. Charlton says, it is not the male alone that is responsible for this, but the female is as much responsible as the male. I find in treating syphilis over a period of a good many years that most cases of syphilis and gonorrhea are contracted from the lower order of prostitutes — not so much from the better class. There should be a law compelling physicians to report these cases the same as scarlet fever or small-pox, as they are more dangerous to the community, because

scarlet fever or small-pox can be recognized and avoided, but syphilis or gonorrhea are not recognized until the person has been inoculated. So it seems to me that the only possibility of solving this problem is through state and city legislation.

In regard to the treatment of syphilis, I have been treating syphilis for twenty-five years. I can look back and see prosperous business men who have raised families, having been treated with mercury and iodid of potassium. Their children are perfectly healthy, and for that reason I believe that some of my old methods of treatment are just as efficient as the newer methods. This preparation of salvarsan is an undoubtedly good and powerful remedy, and it meets some conditions that cannot be met by mercury and iodid of potassium. So in the last year or so I have made it a rule if a patient comes in with undoubted syphilis to put him on a treatment of mercury and iodid of potassium if indicated, and if the symptoms do not yield rapidly to these remedies, then use salvarsan.

I had a man come into my office a short time ago from a neighboring state, who said he wanted salvarsan. I examined him and found he had all the symptoms of syphilis, and had been under treatment for two years. He was a single man and in position that he need not necessarily infect anybody. I put him on mercury and iodid of potassium and told him to report in fourteen days. He reported in fourteen days with the sore mouth all cleared up, and on the way to recovery. So I do not make it a rule to use salvarsan in every case that comes in. If I have a case that will not yield to ordinary treatment in the usual time, then I think it is time enough to resort to salvarsan.

Another point is that we know while a patient is taking mercury you cannot get a positive Wassermann test, even though you know the patient is not cured. You cannot get a positive Wassermann while the patient is taking mercury.

Dr. J. E. Morrow, Indianapolis: I cannot agree with what Dr. Barnett said in regard to the teaching of sexual physiology and hygiene to the public. As a matter of fact, syphilis has, in this country, almost assumed the form of a plague. Dr. Prince A. Morrow, after careful investigation, asserted two years ago that there were at least 2,000,000 persons in the United States infected with syphilis. I recently saw a quotation in which the late Dr. Hyde stated that it is probable that 18 per cent. of the population of this country were syphilized. This would indicate that one in every six of our population is suffering from syphilis.

What are we going to do about it? Shall we continue to keep silent and allow innocent women to be infected and bear children that must live maimed lives, because they do not know the dangers to which a marriage exposes them? How many fathers, when a young man asks for his daughter, insist on being informed whether he has been infected with syphilis or gonorrhea? This is a serious matter. We know that 85 per cent. of the operations for diseases peculiar to women are made necessary by gonorrheal infection. It shows the necessity of teaching sexual physiology and hygiene, and giving information as to the results of sexual sin to the young. This subject has not received the consideration that it merits. It is not right to allow people to continue in ignorance on this subject. Only evil and suffering can result. As a matter of fact, I believe that if sexual subjects were more commonly discussed and were not made a matter of mystery, boys and girls would not be so curious and persistent in seeking surreptitious information. If they could go to their parents and ask questions on this subject and receive such answers as their intelligence could grasp, their curiosity would be appeased, and they would not seek information from their companions of the street and school-yard. This is a matter of great importance, and one which is to-day receiving much consideration, and should receive more. When the doctor interests himself in this subject and studies the conditions, and tries to educate the people, then will the venereal plague begin to decrease, and there will be fewer innocent women infected on their marriage bed.

So far as the treatment is concerned, I feel like Dr. Garshwiler after he had tried to make Noguchi tests. He said that he studied the subject until he had wheels in his head. There has been so much written on the subject, and so many diverse opinions as to the benefits to be derived from, and the manner of administering salvarsan, that I hardly know where "I am at." I have had some experience with arsenobenzol, and can truly say that I believe it will prove to be a valuable remedy. My experience with this remedy has been satisfactory. All of the cases to whom I have given the drug, except one, gave a negative reaction in from fifty to sixty days after it was given. There can be no doubt that arsenobenzol will be a valuable aid in the treatment of syphilis; but the way in which it shall be given, the form and stage of the disease to which it is best suited, and whether or not, in order to insure permanence of results, it will be necessary to supplement its use with mercury, remain to be demonstrated.

Dr. A. W. Brayton, Indianapolis: I do not suppose that one person in ten here has ever given or used salvarsan, and inasmuch as our purpose is to find out the best method of treating syphilis, I will not speak on the economic, sociologic or diagnostic features, but will confine myself to the treatment. There are 275,000 new cases of syphilis every year in the United States, each one of which may infect others, and over 50,000 still infected from the syphilis of the year before; and there are probably altogether two or three million people that have the spirochete in

their person, but not absolutely in their keeping. Perhaps half of them are infective.

Now what shall we do in a case of syphilis? That is the question we are here to discuss, and it is the interest in the modern treatment of syphilis which has brought this great audience to listen to this symposium. Diagnose it along modern lines as indicated by Dr. Garshwiler in his excellent paper. Diagnose it by clinical symptoms, by the history, the organism and the Wassermann test, and then treat it according to the best of our judgment and knowledge as taught us by all of the ancient, and especially the recent, history of the disease.

We have in our city a group of six or eight men who since the first of February have given salvarsan from thirty to seventy times each. The first four patients were treated in our City Hospital, out of the original five packages sent from the Rockefeller Institute to Dr. Wynn. The results in these cases were good. I have yet to hear of a single case treated by Drs. Garshwiler, Moore, Charlton, Barnes, Hamer, Keene or Wynn with anything but good results, and even better results than any one of this group had ever achieved before.

Every word that Dr. Charlton has said in regard to the great value of salvarsan I wish to support. I feel in regard to these new methods of diagnosis and the immediate treatment with a full initial dose of salvarsan, followed by mercury, the same enthusiasm as our great Indianapolis surgeon, the late Dr. Joseph Marsee, expressed about the antiseptic treatment of wounds at the City Hospital. When Dr. John Oliver was superintendent he read a paper before our Indianapolis Society stating that shoulder and hip-joint amputations had been made by Dr. Marsee, and that the primary dressings were not removed for ten days; that there was no fever and no "laudable pus," and that the patients were discharged with cured and sound stumps in from twenty to thirty days. Dr. Marsee supported Dr. Oliver in the discussion, and with earnest voice vibrating with emotion said: "Brethren, I would not know a microbe if I were to meet one walking down the street, but I do know that whereas I was once blind, by the grace of God I now see." He spoke with heavenly earnestness and continued in the faith to the day of his death.

We have come to the parting of the ways in regard to the treatment of syphilis. We have a new addition to our therapeutics; it cannot be laughed down. The paper that was read in regard to the economics of syphilis I was not present to hear, but know it was good. I support the paper of Dr. Garshwiler in regard to general prognosis, as to the use of the microscope in finding the spirochete, and also the use of the Wassermann reaction, as carried out by Drs. Thrasher and Langdon in their private laboratories and in the Bobbs Dispensary and the City Hospital.

But before we leave the subject of salvarsan I wish to say a word about mercury and potassium iodid. No case properly treated with mercury requires, at any stage of the disease, potassium iodid. The chief two indications for potassium iodid are periodic pains and manifest loss of tissue, and in these conditions it is usually given with mercuric chlorid. The great London syphilographer, Jonathan Hutchinson, after fifty-four years of observation, recently said he had no reason to regret any marriage he had sanctioned after two years of good mercurial treatment, where there had been no lesions of syphilis in the second year — and this he taught fifty years ago, before the spirochete was discovered in 1905 by Schaudinn, and before the Wassermann reaction was known and generally applied. The spirochete has only been looked for as a means of diagnosis in this state in the last ten or twelve months. The Wassermann reaction has not been used intelligently in Indianapolis until within a very few months. Drs. Thrasher and Langdon use the full Wassermann test with certain modifications of Noguchi, but no credence is given to the use of test papers as reagents, or of any cheap and doubtful methods of using this test. But now as many as fifteen persons are examined for spirochetes by the Wassermann reaction from my clinics at the Bobbs Dispensary in one week.

Now as to the harm salvarsan may do to the eyes. We have not had one case in Indianapolis in which the eyes were hurt by its use, out of over 500 cases in my personal knowledge. The patients at the City Hospital and Bobbs Dispensary get up from the table and walk home after taking an intravenous injection, and many of them commence their ordinary work the next day. They are getting no evil results. We have not had to exceed four or five abscesses, even in the 200 or more early cases treated by the injection made in the muscles.

I regret very much that Dr. Ridenour's paper has to go into our record unless it is profoundly modified. I am sure that with a fuller knowledge there are a great many things in his paper he would like to withdraw. I do not care anything about discussion of details; the main thing is to get the drug into the system of all who need it. Follow it up with the Wassermann reaction and a proper treatment by mercury. What is the proper amount of mercury to follow salvarsan? Give three or four one-fourth grain tablets of the protoiodid tablets to the average man every day for 365 days in a year. Follow the method of Keyes, the elder, in the use of protoiodid if you choose. Or give the salicylate of mercury or the gray oil, and after having given five or six injections of 1½ grains of quicksilver in the gluteal muscles every two weeks, you will have no further symptoms, and will maintain a neutral Wassermann reaction throughout the entire course.

In the English army Lambkin advises giving thirty-two injections of 1½ grains of mercury in

two years, and it is his contention that this is sufficient for perfect treatment of the average British soldier suffering from syphilis. I have given eighty-four injections of the salicylate — 8 minims of a 20 per cent. suspension in albolin. The same patient took also three-fourths grain of protoiodid daily for two years. His wife became pregnant in the twenty-second month of his disease. She took one-fourth grain of calomel each night during her pregnancy. When the healthy babe was 3 months old, father, mother and child each had a negative Wassermann, and the husband was cured as far as we know that a case of syphilis is cured.

We can control our cases absolutely with mercury, if given rightly. Then why use salvarsan? Because it is safe, it acts quickly. Patients increase in weight; they gain often a half pound each day. They may have rigors; they may vomit and purge. But there is no risk — and this is the greatest value of salvarsan — of their infecting other individuals in twenty-four hours after taking treatment. When you come to consider this subject two or three years from now, there will be but one voice, and that will be for the intelligent treatment of syphilis by salvarsan to protect the patient and the community. There will be such a knowledge and use of the remedy that it will be just as it was with diphtheria. At first people objected to antitoxin, but now they call up the doctor and ask him to bring his apparatus for treatment by antitoxin.

There was an article in *McClure's Magazine* for December last, by Marguerite Marks — "Paul Ehrlich: the Man and His Work" — approved by Ehrlich himself, which it would be well for physicians to read and get their patients to read. Not the least of its merit was that the sub-title is used, "A Cure for Syphilis." The hated word was used. It would have been well if all our newspapers had given out the name "syphilis" in their writing about salvarsan, instead of the prudish epithet a "blood disease." We need a wide-spread knowledge as to syphilis, its modes of dissemination and the cure for it.

I regret very much the false and derogatory statements that are made in Dr. Ridenour's paper. They will be discouraging to many of our physicians — if there was not someone to oppose them with the truth, as Dr. Charlton has done and as I am doing — who know something about the matter by actual tests in hundreds of cases.

I reviewed a paper within a week written by one of the editors of the *Interstate Medical Journal,* who has collected data from over 500 foreign papers on this subject, and there are only one or two men of rank or standing in any country in the world who have written a discouraging paper regarding salvarsan since it came into general use nearly a year ago.

Dr. W. S. Ehrich, Evansville: There has been quite a good deal of interesting matter in the newspapers on the sociological side of venereal disease, and I must say I am a little surprised to hear the segregation of prostitution spoken of in connection with this subject. In my modest experience I have found only about one case in five that has been contracted from a regular prostitute. How will you isolate her? There is but one way to handle this subject, and that is by education. Start in the schools, make a chair of sexual hygiene in every high school, have a woman teach the girls if you please, but the girls should be educated as well as the boys and men, sexually.

So far as the spirochetes go, I entered the work with fear and trembling. I had heard so much about the difficulties. But you take either the India ink method, or another method equally simple — the Leishman blood-stain — and the spirochete can be obtained very easily and quickly and to my entire satisfaction.

As to the primary source of syphilis, I do not believe any man, I do not care how many cases he has seen and handled, is justified in making a diagnosis of syphilis from primary sources unless he has evidence of the spirochete.

So far as treatment goes, I wish to add my voice to that of Dr. Brayton and Dr. Charlton — that I think salvarsan is the greatest remedy that has been discovered. I have had enough experience to form an opinion of my own. I have never seen bad results from salvarsan. In the results I received I had one that I did not get a direct reaction, but I found it was because the solution I was injecting was not alkaline.

It has been my misfortune to have patients who cannot afford to have a Wassermann reaction every month. If my patients have no further clinical symptoms in six months, I have a Wassermann made. If a patient comes to me and asks, "Will salvarsan cure me?" I invariably say that personally I believe it will after two or three injections. My experience has been that one injection usually does the work from a clinical standpoint, but I always assure the patient that if he will take one injection of salvarsan, and take it now, to render him harmless to the community, and then take a course of six months of hypodermic injections of the gray emulsion of mercury, I believe he will be cured.

Dr. T. Victor Keene, Indianapolis: I quite agree with Dr. Brayton that it matters not how we use salvarsan, the thing we are most interested in is to get it in. I cannot agree that we have had no bad results in Indianapolis. We have had one case reported at our local medical society in which there was most severe prostration lasting some few days. One local man has talked to me about a case which has had more or less trouble with the hearing; but granting that these two cases were really caused by salvarsan, I think the advantage that has accrued to this community by the use of salvarsan would have been fully paid for if we had had two deaths from the drug.

Now, while I agree with Dr. Brayton that it matters not how we use the drug, I think that possibly a moment's discussion as to the technic might not be out of order. Anyone who reads the literature at all extensively will come to the conclusion very early that it matters not how it is used. As a matter of fact, there are three different methods of getting the drug into the system. The first is the so-called intravenous method; the second is in water solution, and the third is in oil suspension. Practically speaking, the intravenous is decidedly the most brilliant method, if it works. But I do not employ the intravenous method so much as the others, because of the hazard. I can see no way by which, if you have the misfortune to administer too large a dose of "606," you could possibly remove the drug from the system after it is in the vein. I think, too, in the muscular method there is some likelihood of muscular necrosis, so the method I employ more than any other is the method of suspension in oil. I have talked this matter over with Dr. Brayton as well as quite a number of other local men, and they do not agree with me, but my clinical results are as good as those secured by any other method. I think the only difference between the oil suspension method and any other is that with oil suspension you are four hours later getting the average mean percentage of "606" into the blood stream. But, as Dr. Brayton has said, it matters not how "606" is used, so long as we get it into the system.

THE VALUE OF THE MEDICAL SOCIETY *

George F. Keiper, M.D.
La Fayette, Ind.

For the honor that you have conferred in electing me to this office unanimously, I return my most sincere thanks, and beg leave to assure you that I will to the best of my ability endeavor to advance the interests of the medical profession, not only locally, but everywhere I happen to be in contact with it. To this task I invite your hearty cooperation. I say "medical profession." In this materialistic and commercial age we hear medicine and its practice called a business. It is some twenty-odd years since I first heard it called a business, and I cannot forget how that designation came as a distinct shock to me, for I had been brought up to the idea that the practice of medicine was and is a profession and perforce a learned profession. While we may have been discouraged at the progress of the commercialism that has infested our profession, yet that experience is not new to it, for Garth in 1699 writes:

How sickening Physick hangs her pensive head
And what was once a science, now's a trade.

The practice of medicine can never be a trade or a business. It has its business side but that is all. That side is not to be neglected either.

The medical man does not deal with pots and pans, dry goods and wet goods, carpets and furniture, houses and lots, or the like of these, but with that subtle something that we call life and when implanted in a framework of bone overlaid with muscle, tendon, nerve-tissue, blood-vessels and skin becomes a personality, humanly speaking.

Business deals with all the rest, but not so the physician. It is Osler who says: "The problems of disease are more complicated and difficult than any others with which the trained mind has to grapple. The conditions in any given case may be unlike those in any other, each case, indeed, may have its own problem." Let us therefore get rid of the idea that medicine is a commercial pursuit merely and apply ourselves unselfishly to the problems of health and disease that confront us on every hand. Let us get back to the idea that used to prevail in old New England, where the doctor occupied a very exalted position in the estimation of the community. For when advice was sought on any subject of importance the minister, lawyer and doctor were invariably consulted and their advice was deemed final. They were the trinity of last appeal. Much of the evil that has crept into the profession has been through the idea that medicine is a business and not a profession, and we have not redeemed our former position in the estimation of the people. Some of these even regard a medical society like this one to be on a par with a labor union.

In this country we have approximately 120,000 doctors. Our American Medical Association has 35,000 members. In the various state societies there are 60,000 members, leaving 60,000 doctors outside the pale of society influence, like the influence of this one.

Medical societies are of comparatively recent origin. In Edinburgh was probably formed the first medical society, in 1732, the Royal Medical Society. In 1752 was formed the Harveian Society. The Medical Society of London was formed in 1773, just three years prior to the opening of the American Revolutionary War. In 1795 was formed the Abernethian Society. In this country the first society was probably the Litchfield County, Connecticut, Society, which was organized in 1784. In 1787 was formed the College of Physicians in Philadelphia. The Medical and Chirurgical Faculty of Maryland was organized in 1799, and the State Society of

* President's Address before the Tippecanoe County Medical Society, Jan. 8, 1912.

Maryland has never changed that title. The American Medical Association was formed in 1847. Thus were doctors drawn together by a community of interest and the desire of greater knowledge possible only in its highest degree by physicians associating themselves together in the reading and discussion of papers and the interchange of experiences.

The medical society ought to be the postgraduate school of the profession, its clearing-house. There is no other profession or calling where the tendency to mental stagnation is so imminent a danger as in our own. Men and women who have graduated well have grown to neglect medical study for the newspaper habit and the reading of the present-day evanescent novel. Many thus know less medicine at the lapse of ten years than they knew when they received their diplomas. The education of the modern physician must of necessity be continuous. To get behind the times, hopelessly almost, is simply for one year to fail to keep up with the output of the profession in its literature. A famous musician among other things wrote to a friend of his that if for two days he failed to play over his music, his literature, he noticed that he was not as apt as he was the two days before. If he failed for a week, his friends noticed it. If for a month, the public noticed it. If that is true with the literature of the musician, what about the physician and his literature? It was the ancient philosopher Plato who said that education is a lifelong business. The physician's education must come from his books, patients, his laboratory, honest work and contact with his fellow practitioners in the assembling of each other together in the medical societies, remembering the exhortation of St. Paul to the Hebrews (Epistle, Chapter 10): "Let us hold fast to the profession of our faith without wavering. . . . And let us consider one another, to provoke to love and to good works, not forsaking the assembling of ourselves together as the manner of some is."

Some are wont to deplore the existence of so many societies. I take it to be a good sign that we have so many. We have our county society which puts us into intimate contact with the local profession. The state association once a year broadens our horizon and puts us in touch with the best of the state. Once a year the national organization, the American Medical Association, gives us the opportunity to get acquainted with the best of the nation, for the best, as a rule, attend these meetings, and the better the man the more likely he is to attend the meeting of the society higher up. Then there are the societies for special lines of work. These exist because the members thereof want something which is not supplied by the general societies. The existence of these numerous societies is in obedience to the desire of their members for wider and more technical knowledge.

The medical society does more than give us knowledge. It puts us in contact with the personality of our fellows, makes acquaintances easy and produces good feeling in the profession. In no other profession have jealousies been so rife as in our own, and usually on the non-essentials of medicine.

> Life is too short to waste
> In critic peep or cynic bark,
> Quarrel or reprimand.
> 'Twill soon be dark:
> Up — Mind thine own aim, and
> God speed the mark.
>
> —*Emerson.*

Of course the high calling of the minister will forbid him becoming jealous of a brother of the cloth. The lawyer meets so frequently in the court-room his brother practitioners that he learns to know them and to respect them. But the physician without meeting his brother practitioner occasionally, tends to drift apart from his associates in the practice of medicine. The man or woman who pursues the solitary way is beset with a thousand more dangers than the one who meets with his fellows occasionally. The old saying is true: One shall chase a thousand, but two shall put ten thousand to flight. The meaning of this applied to the practice of medicine is that thus the efficiency of a practitioner is increased five fold. In contact with still others the efficiency of the practitioner is raised to its highest power. We never get too old to learn. The ancient Roman philosopher, Cato, learned Greek when he was 80 years old. It is said that when Osler was at the University of Pennsylvania and Wilson at Jefferson, they used to meet frequently to discuss the problems of medicine. Herein each probably laid the foundations of character and endeavor on which the fame of each as practitioners of medicine rests.

From the Los Angeles *Times* comes the following:

A Dayton reporter interviewing Wilbur Wright about his new stabiliser complained:

"Mr. Wright, you are not much of a talker, are you?"

"My boy," Mr. Wright replied, "I never yet learned anything new by hearing myself talk."

We learn from hearing others talk.

This briefly is my plea for increased interest in the work of our medical societies on the part of our practitioners of medicine.

I would urge that our local physicians take more interest in civic affairs and literary work. At the recent meetings preparatory to the celebration of the centennial of the Battle of Tippecanoe but three members of our profession took any interest; and one is not a member of our society. The preparations for so important an event should have brought out a goodly representation of our profession. In the fight on tuberculosis but a very small per cent. of our physicians evince any interest in the work of our local society for the prevention of that dreaded disease.

In the various literary clubs of the city but a few physicians have any interest. While we study medicine assiduously, let us not forget that a little time a day given to such works as Shakespere, Oliver Wendell Holmes, Ralph Waldo Emerson, Epictetus, Don Quixote, Pepys Diary, Dickens, Hawthorne, Burns, Longfellow and the Old and New Testament will give an education which, though it be not the education of the scholar, yet it will be the education of a gentleman (Osler). A book on our dressing-table to be read for a few minutes before we retire and on rising will work wonders with us. "Books delight us when prosperity sweetly smiles: they stay to comfort us when cloudy fortune frowns. They lend strength to human compacts, and without them grave judgments may not be propounded" (Richard DeBarry, Philobiblion, p. 113).

But the literary work particularly referred to is the preparation and subsequent publication of articles on medical subjects based on the experiences that we are continually encountering. Our physicians should write more. Nothing so conduces to a broad and accurate view of a subject than the writing of an article on that particular subject. The late President Harper of the University of Chicago once said that if he wished to know a subject thoroughly he wrote a book on that subject. The meaning of this is: when he studied a subject from all its standpoints a book was inevitable from the mass of knowledge that he had obtained from study on that subject.

We have in LaFayette as good practitioners of medicine as will be found in any city of the state. In fact, the average is very high. But the trouble is that our physicians with experiences as unique as others have, and who are just as bright as any others, let their experiences oftentimes go to the limbo of forgetfulness, and hide the light of their personality under a bushel. We owe it to our brother practitioners to give them what others give us. This is the ethics of medical authorship. Therefore let me urge our local profession to commit to paper and publication papers that will put LaFayette and Tippecanoe County on the map of medical authorship and distinction.

'Tis man's worst deed
To let the things that have been to run to waste
And in the unmeaning Present, sink the Past.
—*Lowell.*

Our new secretary is taking steps to secure the publication of the minutes of our society in The Journal of the Indiana State Medical Association. This action on his part should be endorsed by this society.

Plans should be laid very early for a broader work than the society has been doing in the past. We ought to be in touch with the best that will be of benefit to our community in the future from the standpoint of sanitation and public health. For example, it is a question with the growth of population that we must alter our sewerage system to avoid contaminating the waters of our river, thus conserving the health of communities below us. Twenty-five years hence we will wonder how at this time we could have been so negligent of the welfare of others that we permitted the contamination that we permit to flow into that river daily.

Finally, for the further cultivation of good-fellowship we ought to meet round the tables in one of our clubs occasionally for a lunch after meetings. This will have the further effect of stimulating attendance at our meetings.

The House-fly.—Dear Citizen: I am a fly now. Once I was a maggot. I hatched out in a filthy closet in a dirty backyard. I live on stable filth and garbage-can slops.

I carry all kinds of disease on my hairy feet. This I wipe off on the sugar-bowl or the baby's bottle when I come in to see you, or wash off when I take a bath in your coffeecup or in your glass of milk.

I cannot live where there is no filth. I think you must love me because you have kept such nasty places for me to live in. I hope you will do nothing to disturb your filth so that I may be with you again next year. The fact is, I have already laid many eggs in your refuse and when the warm weather comes, if you do not destroy my babies, many millions of us will be ready to call on you again.

We shall take no offense if you have screens. They are, you know, quite a fashion. All we ask is to be allowed to hatch out in our usual haunts and we promise to dine with you every day. Goodbye until we meet again.

A Housefly and Family.

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EDITORIALS

CONGENITAL STENOSIS OF THE PYLORUS

Among the numerous subjects brought out in the pediatric study of the last decade, but few more have received the emphasis demanded by their importance than congenital pyloric stenosis. The condition is also spoken of as pylorospasm, hypertrophic stenosis of the pylorus or as pyloric stenosis of infancy. The greatest development although recent, yet began with the report of Hirschsprung in 1888, but such development was slow until within the past few years. Now, however, in communities where the disease has been recognized an increasing number of cases is being reported. One of the more exhaustive contributions upon the subject is the paper of Charles L. Scudder, read before the *Clinical Congress of Surgeons of North America,* at Philadelphia, Nov. 14, 1911.[1]

It would seem from the author's discussion that he favors the elimination of all cases of so-called spasm of the pylorus without a definite tumor. Little is known of the etiology of the condition. Holt says that fully four-fifths of the cases occur in males. That it has no relation to the method of feeding is shown by the fact that a large proportion of the recorded cases have been in nursing infants. The explanations for its occurrence have varied from a condition of primary hypertrophy with a secondary spasmodic element added, to a purely spasmodic condition from gastric or duodenal irritation, due possibly to increased acidity. Analogous spasmodic conditions found in infancy are: constipation, due to spasticity of the sphincter ani; intussusception, due to intermittent muscular spasm of the intestines and various spasmodic affections of the larynx and bronchi. At autopsy, however, the pylorus appears as a hard whitish tumor about the size of a peanut, and of almost cartilaginous consistency. The lumen may be so narrowed as barely to admit a fine probe, and occasionally water cannot be forced through the stenosis. The walls of the stomach, particularly toward the pyloric end, are apt to be hypertrophied while the stomach is usually much dilated, its lower border being below the navel. The dilation may reach even to the esophagus. On section the pyloric thickening is seen to involve chiefly the circular muscular fibers which are found to be two or three times the normal thickness. The other coats are thickened to a much less degree.

Scudder pictures the symptomatology thus: The patient is at first an apparently healthy breast-fed boy. There is present the characteristic persistent obstructive vomiting; the palpable tumor; the visible gastric peristalsis; the constipated meconium-like stool; the epigastric fulness; the lower abdominal depression; the continuous loss of weight. Despite experiments with feeding and the use of drugs of various sorts, the baby gradually wastes away and dies of starvation —dies of a pyloric obstruction. The vomiting of pyloric stenosis is not of the ordinary regurgitating type of indigestion but is forcible and projectile, at first occasional but soon habitual. The infant wastes steadily, often losing one or two ounces a day. There are no fever and little or no evidence of pain, but a progressive failure in nutrition and death from exhaustion, often in from four to six weeks from the beginning of marked symptoms.

The average time of the beginning of symptoms is after the first week and during the first month, rarely as late as the sixth or seventh week. Holt declares the manner of vomiting to be characteristic, the infant fairly shooting out the contents of the stomach to a distance of four or five feet, and the food frequently coming through the nose. It most frequently comes directly after a meal and often with the child still at the breast. After such vomiting nursing is occasionally resumed with avidity, showing the absence of indigestion symptoms. All the food is generally expelled at one time, indeed the amount vomited may be considerably greater than the meal just taken, indicating a considerable retention of food in the stomach. Some of these children vomit regularly after every feeding while others retain two or three feedings, then only to expel the whole amount. There is no uniform change in the gastric secretions, but there is frequently hyperacidity present associated in some cases later with a large amount of mucus.

The picture of gastric peristalsis presented by Holt is interesting and constitutes the most diagnostic feature of the disease according to that author. With the skin bare and the patient in a good light the epigastrium presents full,

1. Surg., Gynec. and Obst., April, 1912, pp. 373-377.

while the lower half of the abdomen is sunken. The peristaltic waves are best seen after taking food or water and may be excited by slight friction or tapping of the epigastrium. A slightly moving wave is seen from left to right. First a ball-like tumor, usually about 1½ to 2 inches in diameter appears just below the ribs on the left side and slowly moves toward the right and slightly upward, disappearing just beyond the median line. The phenomenon is repeated every minute or two and may be accompanied by slight evidence of pain. The tumor may be palpated in most cases with careful attention. It may, however, be displaced by a distention of the stomach or colon or by enlargement of the liver. It is usually felt about 1½ to 2 inches below the free border of the ribs just inside of the right mammary line and is felt only during contraction of the stomach. It appears somewhat smaller than the little finger and about three-fourths of an inch long.

Two types of cases are seen. First, the acute, usual type proving fatal in one or two months unless relieved by medical or surgical treatment, or of the milder type persisting for several weeks or months with a gradual subsidence of the vomiting and recovery of the patient. Second, the sub-acute or chronic form, which though rare, may give symptoms at irregular intervals during infancy and early childhood.

Diagnosis, though impossible often at the first examination because of the difficulty of obtaining the peristaltic waves and the tumor, yet becomes easy after two or three days of observation. The time of onset and nature of the vomiting are very suggestive. Differential diagnosis must be made from cerebral or meningeal diseases and from cases of cyclic vomiting. Atresia of the duodenum or other part of the small intestine may be differentiated by the presence of bile in the vomitus. The prognosis is always serious, and Holt places the mortality at fully 50 per cent. Naturally the outlook depends largely on the early recognition and prompt and proper treatment of the condition.

Concerning the question of treatment, authorities differ widely in their opinions of the respective values of medical and surgical treatment. On this phase of the subject, Scudder may be quoted with advantage: "That the pure pyloric spasm obstruction can be cured by medical treatment in a large proportion of cases is true. It is also true, as far as I am able to learn, that there is no case of true tumor which has yet been cured by medical treatment. So far as I am able to determine no so-called medically 'cured' case has ever been proved to have had the disease, but on the other hand many cases of supposed 'cure' have relapsed and have been subsequently treated surgically. The tumor has been demonstrated to exist and a cure by surgical means has followed.

"Those who advocate and practice the medical treatment of true tumor cases do so on the erroneous hypothesis that muscle spasm is the chief cause of the obstruction. They lose sight of the fact that it is the tumor that obstructs. At best, medical treatment relieves only the hypothetical spasm that perhaps accompanies certain tumor cases. Medical treatment does not effectively remove the primary cause of the obstruction."

Holt probably expresses the ideas of most progressive pediatricians in concluding that the spasm cases only are relieved by medical treatment and the tumor cases only by surgical treatment. Of course it is a matter of the utmost difficulty to assure one's self that because he is not able to palpate the tumor that such tumor does not exist and therefore that the case is a purely spastic one with no complicating hypertrophy. Were one able definitely to classify the cases into one category or the other the question of early treatment would resolve itself into simplicity and the prognosis for recovery would be correspondingly enhanced. As yet, however, no method of diagnosis is at hand whereby we can recommend one treatment or the other with any certainty of its indication in the presenting case. Scudder seems to take rather a gloomy view of pediatric opinion, condemning, and perhaps justly so, the practice of recommending surgical interference only as a *dernier ressort*. Naturally these little ones are at best, in their depleted state and exhausted condition, poor surgical risks, and once the diagnosis made, every day of delay means a considerable reduction in the chance for cure. He lays particular emphasis on the fact that operation is not done on these infants for the purpose of drainage but that in the case, for instance, of posterior gastrojejunostomy and this or the Loreta operation are the operations of choice, the operation is done simply to allow the intragastric pressure to force the stomach contents through a more relaxed stoma. That such is the normal procedure in these cases has been proved by the work of Cannon, Talbot, Patterson and Cameron. It has also been proved by Dodd by means of the x-ray that the tumor persists and does not materially change after the artificial stoma has been made. In every case a bismuth food passed from the stomach through the artificial stoma and none through the pylorus.

In conclusion it is interesting to note the decrease in the mortality that has been accomplished by modern surgery in these cases. In the period from 1898 to 1905, the mortality with the surgical treatment of this condition was 46.5 per cent. In a collection of three groups of cases operated on between 1905 and 1911 a total of thirty-three cases gave a mortality of 9 per cent., Scudder's own group of fourteen cases, with one mortality, resulting in only 7 per cent. In view of the evidence at hand it would seem rational to believe, as Scudder does, that, considering the danger of delay, the rapidity of the loss of resistance and strength in a starving baby and the almost certainty of a fatal outcome without surgical intervention, that operation should be resorted to as soon as the diagnosis of pyloric stenosis can be made. It is also important that the postoperative feeding and care of these little ones be watched over by an expert pediatrician.

THE TRANSMISSION OF INFECTIOUS DISEASES

At the present time there is probably no question in the whole category of internal medicine that is exciting the interest and investigation that are enjoyed by this problem. Ever since the positive establishment of the germ theory of disease and the discovery of the infecting organisms of certain of the contagious diseases, we have been diligently striving through legislation and education of the public to safeguard our communities from the spread of epidemics. The history of the battles fought by the pioneers in this work, the difficulties sometimes surmounted, other times ending in disaster, and the complications of the process, would make an interesting volume. In later years it would seem that the battle had been well-nigh won in favor of prophylactic medicine, and that the public, though often forced to endure what would seem to be unnecessary hardship, has acquiesced in a most commendable way in the large majority of instances.

Now, however, a new problem seems to present itself in the form of attempted explosion of the theory concerning transmission of contagious diseases through fomites. In this country probably Chapin and Doty stand foremost in the ranks of those who contend strongly against this mode of transmission. It would be folly to ignore the logic in many of their arguments, and yet it would be likewise unfair to the energy and clinical experience of those who have spent years of hard service training the public in a conscientious way to avoid epidemic contagions, for the profession to jump to the opposite side without prolonged and serious investigation of the subject. It is probably well-known that Chapin and Doty seem to feel a lack of necessity for protection of the garments of a physician visiting any of the contagious diseases, merely contenting himself with a thorough scrubbing of the hands and nails which have been in contact with the patient. In other words, they are firm believers in the method of contact infection as conveyed directly from one person to another. It is hard for the layman who has for years been taught that there is serious danger of transmitting contagious diseases through clothing, bed linen, books, utensils, etc., or the clothing worn by those in attendance on such a patient, to witness his physician coming into the chamber of one sick with such contagion, and with little or no precaution other than washing his hands, visit a patient next door suffering from some non-contagious malady, particularly if in the household of the second patient there be children as yet unaffected by the contagion. It is quite difficult for the father, barred as he has been from his home for a period of anywhere from two to six weeks, to see the logic of his physician being allowed to go in and out of his home at will with no other precautions than the washing of his hands. Of course we must not lose sight of the other side of the argument for quarantine, namely, the purpose of preventing transmission by unrecognized infection carriers — the so-called mild and unrecognized cases. Quarantine, then, in the light of other argument, serves its function by segregation, and becomes a period of observation wherein those who have been subjected to exposure are kept isolated during the period of incubation peculiar to each of the infectious diseases in order that it may be ascertained whether or not such person is actually infected.

Two articles of considerable interest bearing on this subject appeared in the April number of *Archives of Pediatrics*, the one entitled "Contact Infection in Contagious Diseases," by Hedges, and the other, "Prevention of Contagious Diseases," by Haynes. Hedges' conclusions are as follows: "(1) The theory of infection by fomites and air has been accepted from time immemorial; not from scientific, but from *a priori* grounds. (2) That while admitting the possibility of infection from these sources in certain isolated cases, the danger is far less than commonly supposed. (3) Contact infection and the dangers to the community from 'missed' and 'carrier' cases are the most potent factors in the spread of these diseases. (4) That by observing the simple laws of personal cleanliness, by scrupulously cleansing the hands and nails after contact with these patients,

the danger incurred by the physician or attendant in transferring the disease to others is reduced to a minimum."

Thus it is that Hedges perhaps is not quite so radical as Chapin and Doty, and in his second conclusion is willing to admit the possibility of certain instances of infection carried by fomites. Even though the danger of transmission from this source would seem to be less than we have heretofore regarded it, yet so long as we know as little as we do at the present time concerning the specific organisms of the several contagious diseases, we are not justified in eliminating the possibilities, and particularly in the face of what has seemed to be, in certain isolated cases, well-authenticated instances, from a clinical standpoint, of such transmission. We do know from clinical experience a considerable amount about the incubation and invasion periods of most of the contagions, and have had such knowledge for a considerable time, so that with these facts in the hands of some of our most competent observers in the past, it seems but fair to have some considerable regard for their conclusions, drawn from clinical experience, and particularly so until they can be rendered negative by actual bacteriologic demonstration. Possibly some of these unknown organisms are spore bearing, or indeed there might be strains of varying degrees of infectivity of the same organism just as in typhoid fever. Again, the bacillus of diphtheria is now regarded as a surgical infection which invades its immediate environment to some considerable extent. If, in making a throat culture, the patient coughs on the clothes or arms of the physician, it is not a remote possibility for that physician to carry the infection to the next patient visited. Because one series of cases of infectious diseases treated in general wards of hospitals has not resulted in the apparent distribution of the disease, or indeed several such series, it does not follow that the possibility does not exist.

Haynes' article, delivered as it was to a lay audience of parents and teachers, deals largely with the social and economic side of contagion, and is an earnest appeal for cooperation with the departments of health. He does, however, take the stand that scarlet fever and diphtheria may be transmitted, if the contamination be recent, by means of infected utensils, clothing, toys, books or other things, and relates the story of a New York family in which one child had diphtheria, the other children being sent South. Some time after, when the first child had recovered, the children in the South took the disease. The medium of transmission was found to be a woolly dog played with by the child in New York and sent South to the other children. Similar instances have been reported by thoroughly competent clinicians, and it seems but fair to us to reserve final judgment in such cases until our data are absolutely conclusive. In the meantime, in the interest of our patients and our communities, we owe a strict and sane prophylaxis.

EDITORIAL NOTES

The Program Committee desires to emphasize the fact that the time is short for the announcement of titles of papers for the Indianapolis session, and wishes to hear promptly from all those members of the Association who expect to have a place on this year's program. Communications should be addressed to the Secretary, Dr. Charles N. Combs, Terre Haute.

Some of the proprietors of the journals owned and controlled by the food and drug adulterators ought to get together in a jollification banquet now that Dr. Wiley has been forced from office largely through their bitter and relentless warfare against him. We hope that their jubilations will be turned to mourning through the appointment of a successor to Dr. Wiley who will be just as loyal to the pure food and drug interests as was Dr. Wiley.

A fraud that has gained headway and is patronized by certain ignorant people is the prescribing of spectacles by mail. The victim is asked to tell all that he knows about his previous spectacles, and to designate what size type he can read on a test sheet that is enclosed with the circulars. The glasses are then mailed to the prospective purchaser following the receipt of the amount charged. One of these fakes is the Dr. Haux Spectacle Company, of St. Louis, and there are others in the same business.

The Graduate School of Medicine of the Harvard Medical School has been established as a separate department, with Dr. Horace D. Arnold of Boston as dean. Under the new plan medical graduates will be afforded an opportunity of pursuing postgraduate instruction in medicine which shall be as thorough, systematic and practical as it is possible to furnish. Unquestionably

the move that has been taken by the Harvard Medical School will be followed by other large medical schools and it is one that is worthy of encouragement.

The well-known firm of E. R. Squibb & Sons deserves great credit for having disposed of the pertinent criticism concerning their new proprietary preparation known as Thoremedin by announcing that the new remedy will be submitted to the Council on Pharmacy and Chemistry and that the firm will abide by the conclusions of the Council. It certainly would be a pity to have a house having the reputation of Squibb & Sons lose the confidence of the medical profession through the manufacturing and exploitation of a misbranded or misrepresented preparation.

The good work that is being done by the Indiana State Board of Health has received wide recognition if we are to judge by the demands that have been made on the Board from all over the country for addresses by Dr. Hurty. Invitations from a number of state universities have been extended requesting visits from and lectures by some representative of the Board, and the work that is being done in Indiana is freely commented on, and favorably, by various public health publications.

President Taft and Ex-President Roosevelt have very decidedly lowered themselves in the estimation of the thinking public by engaging in personalities and acrimonious controversy over the presidential nomination, and it is a sorry spectacle to see two men who have been held in such high esteem by the American public stoop to the tactics of pot-house politicians. If the Republican party does the wise thing it will now turn both of them down and nominate some one who has a higher regard for the dignity of the exalted position to which these men aspire.

The physicians of Kosciusko County have started a commendable campaign of publicity concerning preventable diseases by publishing in the daily and weekly papers some articles giving information which will be valuable to the public in the prevention and cure of some of the more common diseases. A series of seven short articles on the various phases of tuberculosis has appeared in the Warsaw papers, and we understand that other articles will appear from time to time.

To avoid the charge of self-exploitation we believe that medical contributions for the education of the public should be issued under the authority of some recognized medical association, and the committee on public health matters, provided for by the constitution of most county medical societies, could make suitable arrangements.

Dr. John N. Hurty, secretary of the State Board of Health of Indiana, is a member of the Committee on Organization, and the Indiana State Committee of this Congress is composed of Drs. H. H. Sutton, Aurora; S. Edgar Bond, Richmond; J. B. Berteling, South Bend; J. S. Boyers, Decatur; and J. H. Morrison, Hartsville.

The object of the congress is to extend the knowledge and improve the practice of vital statistics and hygiene in the countries which participate. Naturally these benefits accrue in largest measure to the country which is for the time being the host of the congress.

The Vanderburg County Medical Society has recently had a public discussion of the subject of contagion due to the social evil. It was suggested that the literature published by the State Board of Health should be distributed among the families in Evansville and that an earnest effort be made to mitigate the evils and ravages of disease due to the social evil. It was the consensus of opinion that there should be a single standard of morality for the boy and the girl, and that sexual hygiene in some form should be taught in the public schools. The women were urged to refuse to subscribe to the long-promulgated doctrine that "boys must sow their wild oats," and to insist that the young man shall go to the marriage altar as pure as he expects his bride to be.

The Journal of the A. M. A. criticizes the so-called independent journals for carrying objectionable advertising. Why not turn the searchlight on some of the journals published by state medical associations? The Ohio State Medical Association is a large and influential body of progressive medical men, and yet the journal published by that association is a disgrace to the medical profession in that its advertising pages have a large number of advertisements of nos-

trums and proprietary remedies advertised and sold under misrepresentation. The Ohio Medical Association owes it to itself to clean the advertising pages of its journal, and we hope that *The Journal of the A. M. A.* will not fail to throw the searchlight on journals owned by medical societies as well as journals owned by individuals.

The death of Dr. John H. Musser, former president of the A. M. A. and eminent as a teacher, author and clinician, causes us to lose one of our ablest medical men in the very prime of life and at a time when his talents were most valuable in the interests of the medical profession as well as the people. The death of Dr. Musser at the age of 55 serves to remind us that it is not an uncommon thing for such indefatigable workers to be carried off in the prime of life. The strenuous existence which more and more becomes the lot of our progressive and ambitious professional men, is sure to result in a penalty for the overtax which was never intended by Nature. Dr Musser's death in the prime of life may not have been caused by overwork but it is safe to conclude that the years of strenuous toil in caring for an immense practice, in doing a large amount of literary work, and in teaching could not but lower the resisting power and tend to shorten life.

The Indiana branch of the National League for Medical Freedom is busy circulating a lot of dangerous falsehoods concerning the effect of vaccination, and in particular concerning the effect of antitoxin in the treatment of diphtheria. Of course it is a well-known fact that the venal proprietary medicine interests are backing the League for Medical Freedom, and the specious arguments that have been advanced have resulted in securing some deluded followers who are used as cats' paws in support of the main object which is to defeat the Owen bill and, incidentally, to prevent the exposure of the quackery, dishonesty and positive danger of the proprietary medicine interests. We are quite used to the abuse heaped on the medical profession by the League for Medical Freedom because of the support given the Owen bill, but we hardly thought that the League would countenance such a bold and reckless disregard of truth as to attack the medical profession for the use of diphtheria antitoxin, which is one of the greatest life-saving agents that has ever been discovered. In all probability this new line of attack is for the purpose of winning to their cause all of the anti-vivisectionists. Any of the medical men not affiliated with the regular medical profession who have joined the League for Medical Freedom must be proud of the distinction given them by association with the proprietary medicine crowd, the food adulterators, quack doctors, Christian Scientists, and pseudomedical fakers of every kind and description. And they are all playing into the hands of the proprietary medicine interests and aiding in promoting the rankest of frauds which profit by deluding the poor and the ignorant.

Secretary Combs announces that twenty-five county medical societies have increased their membership for the year 1912. He especially commends for enterprise and activity the following county medical society secretaries: C. C. Rayl, Adams County; W. R. Quick, Carroll County; Harry Elliott, Clay County; G. B. Hammond, Crawford County; C. R. Ramsbrok, DuBois County; C. G. Beckett, Fountain-Warren County; V. V. Cameron, Grant County; E. M. Shenk, Howard County; R. Q. Taviner, Huntington County; M. D. Gwin, Jasper County; C. C. Rozelle, LaGrange County; E. M. Shanklin, Lake County; W. H. Muelchi, Perry County; E. S. Imel, Pike County; C. L. Botkin, Randolph County; J. B. Maple, Sullivan County; S. A. Shoemaker, Wells County; Alice B. Williams, Whitley County; Earl Van Reed, Tippecanoe County; G. D. Miller, Cass County; H. S. Murat, Clark County; W. T. Lawson, Hendricks County; A. A. Thompson, Marshall County; J. L. Beatty, Montgomery County; and R. C. Shanklin, St. Joseph County.

There are some secretaries who seem to be indifferent to the success of their respective societies, and it is suggested that it would be a good thing to have such secretaries succeeded by others who are more interested in the work. Occasionally a secretary does his work in a sort of perfunctory manner and considers that he is deserving of credit for his activity. To such we would say that it is not always a question of doing the work but the manner in which it is done. Much as we dislike an overabundance of "glad hand" conduct, yet we must admit that a certain amount of it is palatable to us all, and it is the spirit of good nature coupled with enterprise and activity which counts for success.

The fact that reputable medical men do not advertise to any considerable extent in the lay press accounts for their failure to have more

influence with the editorial columns of our daily and weekly papers. The exploiters of all sorts of medical frauds are liberal patrons of newspapers, and the patronage that is thus bestowed is not without its effect on the editorial policy pursued by many editors who have a high regard for the almighty dollar. When the bill concerning honest medical advertising was before the Indiana legislature, one of the prominent editors of the state, who had been importuned by the medical quacks and pretenders for support, in an unguarded moment made the statement that he did not care a cuss how worthy the bill was for the protection of the public if it had a tendency to cut down his advertising income. He bluntly stated that he proposed to protect his advertising patrons, and as his paper is full of the deceptive advertising of so-called medical specialists and various medical frauds, it is easy to understand how powerful the matter of money is in gaining the support of the average newspaper editor. Some of the worst offenders among editors and proprietors of our daily and weekly papers are deacons in churches, who do a good deal of talking about integrity and honesty, and at the Wednesday night prayer meetings lift their voices piously in an appeal for heavenly guidance to do the right thing under any and all circumstances, but who the next morning forget that there is any such thing as honesty in the conduct of the advertising departments of their papers. Surely a man's conscience is warped when he can be a party to the perpetration of what he knows to be a swindling game, and ample evidence has been afforded by the series of articles by Samuel Hopkins Adams and others as to just what the proprietary medicine and quack doctor advertising means.

A Fool's Soliloquy. — Age 25. "Dietetics! What is or what are dietetics? Who cares a dime for dietetics? Time enough to attend to that cranky old matter when one gets sick or old. You don't get me to listen to the cranks who tell us what to eat and how to eat it. I never think anything about the matter. I just eat anything and everything. I like to begin a meal with a cocktail. It makes appetite, fills me with a glow and gives enjoyment to the feed. I like rich sauces, gravies, highly spiced things, lots of rare meats. Salads! Well, I say yes. Give me lots of salad. Make a dressing with lots of red pepper and strong vinegar. Do I drink coffee? Watch me. The stronger and blacker the better. It doesn't hurt me. It don't keep me awake. I never have a pain. No dyspepsia in me. Yes, I'm getting a little heavy, but I feel all right. I'm English. I love to eat."

Age 48. Say, Doc, can't you cure my eczema? My rheumatism isn't any better. Got puffed ankles and pains in my feet and shoulders. Had one of my awful headaches yesterday. And, say, Doc—my kidneys don't work right. Haven't you got some kidney medicine?

Am I constipated? W-e-ll, yes. But that don't bother me much, for Soggo water takes care of it pretty well. Don't do as well as it did at first, though, and I guess it is not so good. Had another dizzy spell this morning; there was a ringing in my ears and a full feeling in head. Surely, there is some medicine to cure a little thing like that.

Egad, I don't know what I shall do if I have another carbuncle. They certainly are awful. They drag one down so.

Age 50. Dead of Bright's disease. Suffered terribly for two years before he died.

Moral: "Most men dig their graves with their teeth."—*Indiana State Board of Health Bulletin*, February, 1912.

The Delaware County Medical Society has the credit of having prevented the so-called "Associated Doctors" from swindling the people in and around Muncie. For several weeks the "Associated Doctors" have been visiting various cities and towns in Indiana, their coming being heralded by glaring newspaper articles commending these medical fakers to the public as being famous medical specialists having skill second to none in the treatment and cure of diseased conditions. They advertise as being licensed by the state of Indiana, but the officers of the Delaware County Medical Society discovered that only one of the men was or pretended to be a physician, and he possessed a license issued by the clerk of Marion County in 1899. Both men, who represented a Detroit firm, were arraigned for practicing medicine without a license, but on a promise to leave the city and not see any patients, they were permitted to go, and the prosecution was withdrawn.

We notice that since that date the "Associated Doctors" are advertised to appear in other cities in Indiana, and it is now up to the various county medical societies in the counties in which the "Associated Doctors" propose to open offices, to see that these impostors are prevented from practicing their swindling operations.

From the persons interrogated, the officers of the Delaware County Medical Society learned that the method of these quacks is to demand $25 for a month's supply of medicine, and if this sum

is not forthcoming, a special confidential price of $20 is granted. If the latter proposition is not accepted, a reduction to $15 or $12.50 or even $10 is made. If the victim does not have that much money with him, all he has is accepted and a note is taken for the balance. In other words, it is a swindling game from start to finish, and no amount is too small for them to accept, and no person is too poor for them to defraud.

(Since the above was written the "Associated Doctors" were arrested in Fort Wayne and fined $100 and costs in the Municipal Court.)

For many years we have been hearing that water should never be drunk at meals, and preferably not for at least one hour after the meal has been eaten. Now comes Professor Hawk and his pupils at the University of Illinois, who has found that the influence of water drinking with meals, as determined by direct experiment on man, is not attended with direful consequences. On the contrary, the general conclusion from all the findings was that "during water ingestion with meals there is a better digestion and a more complete utilization of the protein food, and that this effect is much less marked with a small water ingestion than with a large one. It is also more or less permanent, with the result that in an individual accustomed to taking considerable water with meals the effects of decreasing or increasing the volume ingested are not immediately obvious." Professor Hawk further says that "the beneficial effects noted are probably due to the stimulatory action of water on the digestive secretions, to the increased dilution which facilitates enzyme action and materially aids in absorption and to a conservation of the intestinal energy involved in the secretion of a diluting fluid which is necessary when insufficient water is ingested."

In commenting on this statement, *The Journal of the A. M. A.* says that "the absence of untoward results is, after all, quite in harmony with the trend of recent investigations of the gastro-intestinal activities. Water has been shown by Pawlow and others to stimulate if anything the flow of gastric juice, and also to act as an excitant of pancreatic secretion. The dilution of the products of reaction is by no means necessarily detrimental to the progress of the chemical changes in the alimentary tract. . . . It seems worth while to add a warning against the indiscriminate and excessive use of large quantities of water. While the ingestion of moderate quantities of water with meals may be harmless in persons with good gastric motility since the excess of water is rapidly expelled into the intestine, it is likely to be harmful in persons whose motor power is below par, and it is probable that there are many such who do not consider themselves ill enough to consult a physician. . . . The experiments of Hawk and his pupils indicate that our ideas with regard to the drinking of water must be revised, but we must still consider the individual case."

The State Board of Health is to be commended for its stand in condemning insanitary schoolhouses. At the last meeting of the Board, held April 12, thirty schoolhouses were condemned as unfit for school purposes. The Board does not interfere with insanitary schoolhouses unless patrons of the school petition the Board, but on receipt of a petition a sanitary survey and inspection is made, and the Board takes such action on said survey as it deems right and proper. In order to show what conditions are met with in schoolhouses that have been condemned, the following survey of District No. 2, Taylor Township, Owen County, is herewith presented.

Site.—Satisfactory.

Building.—Frame, old, dilapidated, one room, on brick foundation, and said foundation broken and ragged in many places. Floor is worn and broken in many places. Ceilings and walls dirty, cracked, and in many places the plaster is falling off. Door is never locked, and has no lock on it, and was held shut all winter by leaning a board against the door from the inside. Several window lights are broken out and paper pasted over some of them. The roof leaks badly in many places, is old and shingles are off here and there. The schoolroom is lighted by three narrow windows in each side, and corners of the schoolroom are dark because there is not enough glass surface. The room is heated by an old cracked stove. Slack coal is used and stove smokes badly. The trustee refuses to supply kindling, and the pupils secure the same by picking it up wherever they can. The trustee sends his children to the schoolhouse at Quincy, in the same township, although the said trustee lives in District No. 2. No water is supplied, and the children have to bring water to drink in jugs or bottles. The out houses are too abominable to describe. In cold weather the children sit around the stove to keep warm, and wear wraps and overshoes all day.

This is a sample description of the schoolhouses which the State Board of Health has condemned, and it is calculated that there are at least 400 more schoolhouses in the state which are as bad as this one, and it is contended that it is extravagance, bad business and immoral for

such schoolhouses to exist. The Board urges the ministers and all others who are interested in good morals and in advancing religion to do all they can to banish insanitary schoolhouses. This would truly be practicing practical religion.

The *Chicago Tribune* started out well in establishing a department of public health with Dr. W. A. Evans, formerly Commissioner of Health of Chicago, as its editor. The department is run in a most excellent manner, and undoubtedly has been the means of spreading reliable information concerning public health matters. But, as *The Journal of the A. M. A.* has pointed out, the character of the advertising pages does not keep pace with the character of the editorial pages, and it is a little inconsistent to preach one thing in the editorial pages and practice another thing in the advertising department. In one number of the *Tribune* Dr. Evans published some information concerning the peril in reducing weight, and advised the readers to leave anti-fat remedies severely alone because they are positively dangerous or are quack nostrums. On the opposite side of the same page the impudent fraud Marmola, an alleged anti-fat remedy, was advertised. In another instance Dr. Evans answered a correspondent to the effect that there is no such thing as a blood purifier. But in the advertising pages the *Tribune* carries the announcement that Kardene will purify the blood. During a threatened epidemic of diphtheria in Chicago, Dr. Evans advised his readers as to the necessity of giving medical attention to every child that showed symptoms of sore throat. He said in particular: "If your child has a sore throat do not trifle with it; do not neglect it; do not attempt to cure it up or cover it up." At that time the *Tribune* was carrying the advertising for Tonsiline, a sore throat "cure" fraud.

As *The Journal of the A. M. A.* very pertinently remarks: "These examples of inconsistency between the editorial and advertising departments of a great paper are not given for the purpose of criticizing the *Chicago Tribune*. They are merely quoted for the purpose of showing how impossible it is for even a careful and conscientious newspaper to avoid making itself ridiculous so long as it accepts 'patent medicine' advertising. There can be no effective censorship of nostrum advertising. Whenever a 'patent medicine' is advertised in truthful and unexaggerated language, that 'patent medicine' will go out of existence. Nostrums can flourish only on falsehood and deception. There is no half-way course. The newspaper that accepts 'patent-medicine' advertising, even though it confines its acceptance to nostrums of a certain type, may just as well make up its mind that, so far as those products are concerned, it is deceiving its readers and perpetrating a greater or less fraud on its subscribers."

The Fifteenth International Congress on Hygiene and Demography will be held in Washington, September 23 to 28, under the auspices of the government of the United States. Twenty-seven governments and forty-two states of the Union have already accepted the invitation extended by the President of the United States, and will be represented by official delegates. Fourteen international congresses on hygiene and demography have been held at intervals of from three to five years in the large capital cities of Europe, on the invitations of the various governments. The present congress is the first to meet on United States soil.

The congress will be divided into nine sections, embracing the general field of hygiene, as follows:

1. Hygienic Microbiology and Parasitology; under the presidency of Prof. Theobald Smith, M.D., Harvard Medical School, Boston.

2. Dietetic Hygiene; Hygienic Physiology; under the presidency of Prof. Russell Chittenden, Sheffield Scientific School, Yale University, New Haven.

3. Hygiene of Infancy and Childhood; School Hygiene; under the presidency of Dr. A. Jacobi, emeritus professor of pediatrics, College of Physicians and Surgeons, New York City.

4. Industrial and Occupational Hygiene; under the presidency of Dr. George M. Kober, professor of Hygiene, Georgetown University, Washington.

5. Control of Infectious Diseases; under the presidency of Dr. Hermann M. Biggs, medical director, Department of Health, New York City.

6. State and Municipal Hygiene; under the presidency of Dr. Frank F. Wesbrook, professor of Pathology and Bacteriology, University of Minnesota, Minneapolis.

7. Hygiene of Traffic and Transportation; under the presidency of Surgeon-General Rupert Blue, United States Public Health and Marine-Hospital Service, Washington.

8. Military, Naval and Tropical Hygiene; under the presidency of Medical Director Henry G. Beyer, United States Navy, Washington.

9. Demography; under the presidency of Prof. Walter F. Willcox, professor of economics and statistics, Cornell University, Ithaca.

In order to illustrate human welfare and demography, or the statistics concerning human welfare, an exhibition will be held in connection with this congress during the three weeks from September 16 to October 4. Twenty-six federal bureaus have signified their intention of exhibiting, as have also many states, cities, scientific associations and institutions of learning and research. No exhibition covering all the phases of hygiene has been held in the United States, but exhibitions on single problems such as tuberculosis, infant mortality, housing reform, sewage disposal and the like have amply proved that the exhibition is a most powerful instrument for the dissemination of knowledge.

The headquarters of the congress bureau are at the Senate Annex, New Jersey Avenue and B Street, N. W., Washington, D. C. All persons interested should address themselves to the Secretary-General, or to the Director of the Exhibition, who will furnish information promptly on request. The membership fee in this congress is $5, and a member is entitled to attend all the sessions of the congress, to take part in the discussions and to receive the printed transactions containing in full all the papers presented to the congress and the discussions.

CORRESPONDENCE

INDIANA'S EARLY MEDICAL WRITERS

Muncie, Ind., March 26, 1912.

To the Editor:—Recently I found in a second-hand bookstore a book of 182 pages entitled, "Practical Treatise on Diseases Peculiar to Women and Girls: to which is added an Eclectic System of Midwifery," etc. The author is Buell Eastman, M.D. This is the second edition. It was printed in Connersville, Ind., in 1845.

Dr. S. N. Hamilton of Connersville has ascertained that Dr. Buell practiced in Connersville during the years 1844 and 1845. He was also a minister of the Christian Church.

Can anyone give me information of any medical book published in Indiana prior to 1845?

G. W. H. Kemper, M.D.

THE OTHER SIDE

Shelbyville, Ind., April 22, 1912.

To the Editor:—In several recent issues of The Journal I have noticed many editorial utterances on the subject of fee-splitting. One notable editorial appeared in the March number under the title of "Publicity to Medical Abuses Increasing."

Did it ever occur to the editor of The Journal that there might be two sides to this question? I might here say that personally I have never either given or received a division of a fee in any case in a practice extending over a period of twenty-one years, and I do not care to be placed in the attitude of defending the "fee-splitters." I simply like to be fair in this as in all other things concerning the practice of medicine.

I know it to be a fact that the large majority of surgeons in this state have been guilty of this "fee-splitting" in the past. When they were young in the profession and did not have a large business they increased it by splitting fees, and now that they have worked up a large and lucrative business largely by this means they want to keep the younger surgeons from doing the same thing and taking away at least a portion of their business. In other words, their howling about fee-splitting is not based on any high moral ground, but purely selfish motives.

They gained at least a part of their present business by this means and now no longer do it because they have the business and do not need to do it any more; not because it is wrong or because any moral question is involved. Is this fair or decent? Is it a "square deal"?

Only a short time since I heard an Indianapolis surgeon, with more than a state reputation, talking loquaciously against the system of fee-splitting, and I know positively that twenty years ago he was dividing fees in nearly all his cases; but he needed the business then and he has the business now. That is the milk in the cocoanut. The morals of the profession are involved? Bah!

Yours for fairness,

Samuel Kennedy, M.D.

EDITORIAL COMMENT

We are conscious of the fact that this dishonest practice is widely prevalent, not only in our own state, but throughout the whole country, and that is the precise reason why every reputable man should wake up to the necessity of fighting it.

But what if every surgeon of note in the state of Indiana had been guilty of the offense, does that alter the essential principle at stake, viz., as to whether it is right or wrong? Not a whit; and for a man to defend himself or anybody else merely on the ground that some or many others are also guilty of the offense is to indulge in the most puerile sort of logic.

Thousands of people held slaves, many railroads have given rebates, and lobbyists and special interests have frequently succeeded in

attaining ends unattainable by or opposed to the forces of justice and equity, but such facts do not establish the honesty of such procedures. A rose by any other name would smell as sweet; so an egg gone bad is just as rotten and stinks just as much whether born from a young or an old hen. The fact is that it is pure graft, no matter how it is viewed, and all looks to the overthrow of honesty, industry and decency, by the almighty dollar.

If a man has been guilty of the practice in the past, so much the worse for his conscience; but if he has undergone a change of heart, then credit him with that much at least, and let the young man begin right in order that the fruits of his long-awaited earnings may have the right taste when they are acquired.

The man who submits his patient to inferior, less safe, or even the best surgical procedures solely for his own pecuniary gain is as much a rascal as the man who pays the price to get the business, and how either party can reconcile his conscience or again face the hoodwinked patient is beyond us.

THE TRUTH ABOUT MEDICINES

This department presents, in concise form, facts about the composition, quality and value of medicines. Under "Reliable Medicines" appear brief descriptions of the articles found eligible by the A. M. A. Council on Pharmacy and Chemistry for inclusion with "New and Nonofficial Remedies." Under "Reform in Medicines" appear matters, tending toward honesty in medicines and rational therapeutics, particularly the reports of the A. M. A. Council on Pharmacy and Chemistry and of the Chemical Laboratory.

The text on which these abstracts are based may be obtained from the American Medical Association, 535 Dearborn Avenue, Chicago.

RELIABLE MEDICINES

Articles found eligible by the Council on Pharmacy and Chemistry for inclusion with "New and Nonofficial Remedies."

Formicin is formaldehyd-acetamid, $CH_3.C.O.NH.CH_2.OH$, a molecular compound of formaldehyd and acetamid. It is a thick, syrupy, water-soluble liquid, having a faint formaldehyd-like odor and a slightly acid, bitter taste. Solutions of formicin liberate formaldehyd gradually at body temperature, and thus exert an antiseptic action. Formacin solutions are employed as injections into tuberculous and non-tuberculous joints, tissues and abscesses. Kalle & Co., New York (*Jour. A. M. A.*, April 6. 1912, p. 1014).

Iodo-Casein is a compound of iodin with milk casein, containing about 18 per cent. of iodin in organic combination. It is a powder, almost odorless and tasteless and insoluble in water. It is said to undergo practically no change in the stomach, but to be quickly digested and absorbed in the form of soluble iodids, in the intestines. Dose, 0.3 to 1.3 gm. (5 to 20 grains). Iodo-Casein is also marketed in the form of tablets each containing 0.15 gm. (2½ grains) and 0.3 gm. (5 grains) iodo-casein. H. K. Mulford Co., Philadelphia (*Jour. A. M. A.*, April 6, 1912, p. 1014).

Meningo-Bacterin is a meningococcus vaccine believed to be useful in immunizing against the meningococcus of Weichselbaum. H. K. Mulford Co., Philadelphia, Pa. (*Jour. A. M. A.*, April 13, 1912, p. 1114).

Pharmceutical Preparations of Accepted Articles. L-Suprarenin Synthetic Bitartrate Tablets, 0.001 gm., each containing 1-suprarenin synthetic bitartrate equivalent to 0.001 gm. (1-65 grain) 1-suprarenin synthetic (*Jour. A. M. A.*, April 13, 1912, p. 1114).

Colon Vaccine is a *Bacillus coli* vaccine marketed in bulbs ready for use. Parke, Davis & Co. (*Jour. A. M. A.*, April 20, 1912, p. 1195).

Gonorrheal Vaccine (Combined) is a gonococcus vaccine containing *Micrococcus gonorrheæ* and *Staphylococcus albus, aureus* and *citreus* bacteria. Parke, Davis & Co. (*Jour. A. M. A.*, April 20, 1912, p. 1195).

Typhoid Vaccine (Prophylactic) is a typhoid vaccine containing *Bacillus typhosus* bacteria. Parke, Davis & Co. (*Jour. A. M. A.*, April 20, 1912, p. 1195).

Furunculosis Vaccine is a staphylococcus vaccine containing *Staphylococcus pyogenes aureus* bacteria. Parke, Davis & Co. (*Jour. A. M. A.*, April 20, 1912, p. 1195).

Acne Vaccine is a vaccine prepared from acne bacilli. Parke, Davis & Co. (*Jour. A. M. A.*, April 20, 1912,(p. 1195).

Combined Bacterial Vaccine is a vaccine containing bacteria of mixed *Streptococcus pyogenes, Staphylococcus pyogenes aureus, Staphylococcus pyogenes albus, Staphylococcus pyogenes citreus, Bacillus coli communis* and *Diplococcus pneumoniæ*. Parke, Davis & Co. (*Jour. A. M. A.*, April 20, 1912, p. 1195).

REFORM IN MEDICINES

Nature's Creation.—A peep behind the scenes as regards the exploitation of patent medicines is given through the falling-out of the exploiters of Nature's Creation. This nostrum was first sold to the public as a cure for syphilis but later became a "consumption cure." The chief promoters, Mrs. J. M. Reynolds and Mr. H. W. Campbell, have had a falling-out and Campbell has taken the matter into court. The sordid details now brought out, it is hoped, will demonstrate to the public the fraudulent nature of the stuff (*Jour. A. M. A.*, March 30, 1912, p. 953).

Objectionable Proprietary Names.—In an address to manufacturers the Council on Pharmacy and Chemistry shows that it is possible to provide medicines with names descriptive of their composition and that the interests of both the manufacturer and the consumer, the physician and his patient, can be sufficiently safeguarded if to the descriptive name of an article there be appended a distinctive word, syllable, initial or sign that shall identify its manufacturer. The feasibility of coining proprietary names that shall indicate the important constituents of a remedy is shown by illustrations taken from "N. N. R." The objectionableness of names which suggest the use of a remedy to the public is discussed and it is also pointed out that names suggestive to physicians are objectionable because there is a tendency that physicians will base their use of the remedy on the name without giving due consideration to the condition and symptoms of the patient. Since therapeutically suggestive titles have been applied to proprietary medicines without any intention of appealing to the public and since it is difficult to change a name once established the Council has decided to make no objection to such titles if they are already in use

provided they are not liable to lead to the use of a remedy by the public (*Jour. A. M. A.*, March 30, 1912, p. 953).

Winslow's Soothing Syrup.—Being held injurious to life the sale and advertising of Mrs. Winslow's Soothing Syrup has been prohibited in New South Wales, Australia (*Jour. A. M. A.*, March 30, 1912, p. 954).

Diastase Preparations Unstable.—A discussion at a meeting of the Société de Thérapeutique de Paris called attention to the instability of diastase, particularly in liquid preparations. Speakers emphasized the necessity of using only recently-made malt preparations in therapeutics if the enzym action be desired (*Jour. A. M. A.*, March 30, 1912, p. 954).

A Good Example.—Having presented each member with a copy of "Nostrums and Quackery" the Los Angeles County Medical Society now presents a copy of "New and Nonofficial Remedies, 1912," to each member. It is suggested that with the possible exception of those physicians whose confidence in their own good judgment is equaled only by their child-like faith in the statements of proprietary manufacturers that a copy of the book ought to be in the hands of every physician who prescribes (*Jour. A. M. A.*, April 6, 1912, p. 1021).

Zymotoid.—Dr. Arnold's Zymotoid, a nostrum manufactured by Arnold's Zymotoid Company, Rockford, Ill., is a fraud of the Liquozone-Oxytonic-Septicide type. The A. M. A. Chemical Laboratory reports that the composition of Zymotoid was found to be: boric acid (H_3BO_3) 0.637 gm., sulphur dioxid (SO_2) 0.129 gm., sulphuric acid (H_2SO_4) 0.048 gm., potassium nitrate, a trace, unidentified organic matter, a trace and water (by difference) to make 100 c.c. The analysis shows that but for the presence of boric acid the composition of Zymotoid is similar to other fraudulent "microbe killers" (*Jour. A. M. A.*, April 6, 1912, p. 1030).

Hamlin's Wizard Oil.—From published formulas it appears that Hamlin's Wizard Oil is a variable mixture containing spirit of camphor, spirit of ammonia, chloroform, oil of sassafras, oil of cloves, oil of turpentine and alcohol. Liniments of this kind should be considered as belonging to the past (*Jour. A. M. A.*, April 6, 1912, p. 1033).

Newspapers and Nostrums.—It appears to be impossible to so censor "patent-medicine" advertisements in newspapers so that all objectionable matter is rejected and only the unobjectionable retained. This for the reason that there is no such thing as an unobjectionable "patent-medicine" advertisement in a newspaper. In proof of this it is pointed out that the Chicago *Tribune*, whose advertising and editorial ethics are of a high order, carries many advertisements which promote remedies or treatments condemned in its editorial pages. Thus, while its "How to Keep Well" department warrants that it is not wise for the obese to reduce their weight more than ten or twenty pounds a year, an advertisement in the same issue for Marjorie Hamilton's Obesity Cure claims that by its use fat may be made to vanish at the rate of one pound a day. A number of similar incongruities are discussed (*Jour. A. M. A.*, April 13, 1912, p. 1118).

Thoremedin Submitted to the Council.—While acknowledging the correctness of the A. M. A. Chemical Laboratory analysis (Jour. Mo. State Med. Assn., April, 1912, p. 409), Squibb and Sons question the conclusions of Dr. Pusey that the product owes its virtues to sulphuric acid alone. The firm's claim that the product owed its virtues to the thorium which it contains was based on the reports of physicians in whom it had confidence. The product has been submitted to the Council on Pharmacy and Chemistry and the firm agrees to discontinue the sale of Thoremedin if the Council confirms Dr. Pusey's findings (*Jour. A. M. A.*, April 13, 1912, p. 1121 and p. 1135).

"Therapeutic Efficiency."—The defenders of proprietary frauds of the so-called ethical variety make much of the fact that the rejection of a product by the Council on Pharmacy and Chemistry is no proof that the product itself has no therapeutic value. In reply it is pointed out that a mixture of quinin sulpbate and starch while therapeutically efficient may yet be exploited so as to make the mixture a rang humbug or a vicious fraud (*Jour. A. M. A.*, April 13, 1912, p. 1121).

Prescription Fakes.—Oxzoin is a prescription fake advertised as a "wrinkle eradicator" and exploited by the To-Kalon Manufacturing Co., Syracuse, N. Y. According to the analysis of the state chemist of North Dakota it consists of zinc oxid 15.6 per cent., glycerin 16.7 per cent. and rose water 67.7 per cent. Saxolite is another "wrinkle eradicator," sold by the Dearborn Manufacturing Company, Chicago, and according to the analysis of the state chemist of Kansas consists of alum 52 per cent., and epsom salts 48 per cent. Vilane Powder is sold as a "concentrated powerful antiseptic germicide and disinfectant" by the Blackburn Products Co., Dayton, Ohio. According to the analysis it is a mixture of washing soda, cooking soda, common salt, sodium salicylate and a little thymol (*Jour. A. M. A.*, April 13, 1912, p. 1132).

Prophylaxis Encouraged.—The Council on Pharmacy and Chemistry desires to encourage the use of reliable and efficient antiseptics, germicides and disinfectants by the public, so far as is compatible with safety. Accordingly it indorses the advertising to the public of such preparations accepted for inclusion with New and Nonofficial Remedies, provided that the advertising is limited to recommendations for use as a prophylactic application to superficial cuts and abrasions of the skin and to the mucous surfaces except those of the eye and the gastro-intestinal and genito-urinary tracts (*Jour. A. M. A.*, April 13, 1912, p. 1132).

Value of Inorganic Phosphates.—The wide-spread tendency to assume a better physiologic utilization of certain inorganic elements when they are furnished in the form of organic combinations is gradually being shown to be without warrant. Thus while it was supposed that the body need of phosphorus could not be supplied by inorganic phosphates, hens and ducks have been shown to be capable of living and of laying eggs when their food contained phosphorus only in the inorganic form. This makes it probable that the advantage of giving phosphorus in the form of lecithin or of glycerophosphates has been over-estimated (*Jour. A. M. A.*, April 20, 1912, p. 1198).

Candy in Pennsylvania.—Good work is being done in Pennsylvania in the improvement of food products. A report of Charles H. LaWall shows that out of over 250 samples of cheap confectionery only four samples contained substances prohibited by law. Many specimens were found to be in a filthy condition and Professor LaWall recommends that manufacturers be compelled to wrap candies in paraffin paper (*Jour. A. M. A.*, April 20, 1912, p. 1202).

Sanatogen.—According to advertisements, chiefly in the lay press, Sanatogen is "The Re-Creator of Lost Health," "a rebuilding food" and "revitalizes the overworked nervous system," and has many other properties which should make it an "elixir of life." Examination in the A. M. A. Chemical Laboratory shows it to be casein with a little glycerophosphate and therefore not greatly superior to cottage cheese. The outrageous claims made for it are condemned by such men

as Lewellys F. Barker, Frank Billings, Richard C. Cabot, Otto Folin, Ludvig Hektoen, J. H. Long, Graham Lusk and H. Gideon Well (*Jour. A. M. A.*, April 20, 1912, p. 1216).

Value of Fermented Milks.—P. G. Heinemann discusses the dietetic and therapeutic value of fermented milks prepared from commercial ferments. He concludes that sour milks as a part of, rather than an addition to, the diet probably are of value. If fermented milks are used then other food should be reduced on the basis of one pound of beef for every quart of milk consumed. There is much reason in the contention of Metchnikoff that premature senility can be prevented by regular diet, decrease of meat and regular consumption of Bulgarian sour milk, but it must not be thought that sour milk is a panacea and that by its use intestinal putrefaction will be reduced unless moderation in diet is practiced. The choice of a suitable ferment being of prime importance attention is called to those found efficient by the Council on Pharmacy and Chemistry and included in New and Nonofficial Remedies (*Jour. A. M. A.*, April 27, 1912, p. 1252).

Eckman's Alterative.—According to the analysis of the A. M. A. Chemical Laboratory Eckman's Alterative is a solution containing about 4 per cent. of calcium chlorid, 10 to 15 per cent. alcohol and a little powdered cloves. This mixture is sold at $2.00 for 8 ounces under the cruelly false claim that it will save the tuberculous. The harm done by nostrums such as this lies in the abandonment of proper treatment by the patient and placing his dependence on the nostrum. Hoping against hope that in the "consumption cure" nostrum the secret has at last been wrested from nature by which the "White Plague" may be vanquished, the ever-optimistic consumptive sacrifices money which should go into good food, sacrifices all too precious time and, finally, life itself, and the consumption cure faker waxes rich in the toll of blood exacted from his credulous victims (*Jour. A. M. A.*, April 27, 1912, p. 1298).

Antidiabeticum-Bauer.—The methods of advertising Antidiabeticum-Bauer have been shown up by the Society for the Suppression of Quackery. A suit by the proprietors of Antidiabeticum against the editor of the *Gesundheitslehrer* resulted in the defeat of the proprietary concern (*Jour. A. M. A.*, April 27, 1912, p. 1298).

Phenacetin, Sulphonal and Trional.—It is a generally recognized principle that the name used by a patentee to designate a patented article becomes the common name of such article after the patent has expired. This principle and also the principle that a generic title—or common name—cannot be legally continued as a trademark have been generally recognized and are thoroughly well established by decisions of the courts. Accordingly the Council on Pharmacy and Chemistry has modified the descriptions for these articles in New and Nonofficial Remedies to indicate more clearly that the names "phenacetin," "sulphonal" and "trional" are synonyms for the official titles acetphenetidin, sulphonmethane and sulphonethylmethane, respectively, and that the tests of identity and purity prescribed in the U. S. Pharmacopeia should apply to the products under these titles (*Jour. A. M. A.*, April 27, 1912, p. 1298).

DEATHS

Dr. J. C. Gifford of Brazil died March 21 at Sarasota, Fla., from paresis, aged 70.

Dr. Harry E. Yost, aged 46, county health officer, died suddenly April 7 at his home in Vallonia.

Dr. Henry Holveson died at his home in Bloomingdale, April 26, following an attack of pneumonia.

Dr. Alfred F. Marshall died at his home in Jasonville, April 22, from pneumonia. Dr. Marshall was born in 1855.

Dr. Charles Mortimer Smith, for more than fifty years a practitioner, died at his home in Evansville, April 1, aged 77.

Dr. George P. Cosby, aged 72, one of the best-known physicians in southern Indiana, died April 17 at his home in Evansville.

Mrs. Walkinshaw, wife of Dr. William Walkinshaw of Stillwell was found dead kneeling beside her bed, the result of having taken a dose of carbolic acid, April 22.

Dr. Eli Schlotterback, for many years a practitioner of South Bend and for thirty years a practitioner of Ligonier, died at his home April 1, from acute gastritis, aged 70.

Dr. John Herr Musser, president of the American Medical Association in 1903-4, eminent as an internist, died at his home in Philadelphia, April 3, from angina pectoris, aged 55.

Dr. E. Moraweck of Louisville, until recently a resident of Tell City, and a member of the Perry County Medical Society, was one of the victims who perished on the Titanic. He was born in 1853.

Dr. Russell Broughton, graduate of Rush Medical College, 1869, proprietor and manager of the Broughton Sanitarium, Rockford, Ill., died at his home in Rockford, April 4, from pneumonia, aged 69.

Dr. Jonathan B. Clark, a member of the Indiana State Medical Association and a pioneer

physician of Wayne County, died at his home in Economy, March 21, aged 75. Dr. Clark was a graduate of the University of Pennsylvania, Philadelphia, in 1860.

Dr. Wilson H. Swales, former coroner of Dearborn County, aged 61, was found dead in a ditch near his home in Logan Township, March 25. Dr. Swales was returning from a professional call, and presumably he fell from his buggy as the team stumbled into the ditch.

Dr. L. T. Lowder, for twenty-two years a practicing physician in Monroe County, died at his home in Bloomington, April 20, after an illness of three years, resulting from a fall. During the Civil War he was a musician in Co. E, 136th Indiana and at the close of the war began the study of medicine, graduating from Indiana University and Central Medical College, afterward taking post-graduate work in New York and Chicago and later in Berlin, Germany. Dr. Lowder was a member of the pension board at the time of his death.

Politics carries strange skin diseases.

The high cost of collecting is also increasing.

A rolling stone should be *x*-rayed before removal.

People who live in glass houses should easily keep aseptic.

Christian Science.—One of the most clever stunts the Devil ever backed personally.

When the assessor appears it is one time in the year we are really honest with ourselves.

Fly time will soon be here again, so put stoppers in all the syrup bottles and cover the ointment cans.

A fine auto runabout gained by questionable ethics isn't half as good as a clean conscience to take to bed each night!

Dr. Sandelman Phor has given up his practice and now runs a prosperous nickel theater in Damon Center.

Under the impression that a depilatory was a hemorrhoid cure, Dr. Slogul is now fighting a malpractice suit.

Illegible prescriptions like illegible signatures are prompt and unmistakable signs of ignorance.

Dr. Clifford Strongbow of Indianapolis has changed his office hours so as not to interfere with the ball games this summer.

Uncle Ace Tanilid, accompanied by his maiden sister-in-law Sal Varsan, visited at McBurney's Point last week.

If the real worth were taken from the vast tomes now encumbering our medical libraries, a 5-foot shelf of books would encompass it.

Have you tried "bran biscuits" for your cow? They are so good that out goat ate even the copy of the directions for making them.

In analyzing a package of surgical dusting powder over which he had become curious, Dr. Quimby Buff found it to be ground Oolong tea.

Dr. Update of Swamstown has purchased a 1912 model office table which has three speeds forward and reverse with quick detachable leg rests.

Dr. Henry Pring returned recently from a year abroad, and says he is now sorry he left home as his practice has apparently not missed him.

Dr. Sam Derby of Newcup, Ind., married a wealthy widow recently, and announces that he will open his newly equipped offices about April 30.

Dr. Gumshoe of Beavertown has had 500 death certificates printed "typho-malarial fever." Doc is so busy that he undoubtedly saves time by this method.

Dr. Whiffkins—"I had only two patients die last year. Some record, eh?"

Dr. Oldhorse—"Pretty fair. What happened to the other one?"

Dr. Ben Clipper of Idle Hours has closed his office during the summer months and will open it again in September when the public quits living out of doors.

Dr. Willy Flier has decided to leave Defi. since the last meeting of the Women's Club. Willy was unwise and was open in his objection to suffragettes.

Referring to the new medical graduates, old Dr. Bangkok of Luttingay, Ind., said the other day that grass was not the only thing green in the springtime!

One heel of the diamond-set shoes of the Muncie woman would go a long way toward helping the children get clean milk at the free milk stations this summer.

Dr. Firstly Forth of Circus Net, Ind., says in speaking of a recent case that it is the last time he will be fooled into ordering a maternity corset for a fibroid tumor.

The Turkeytrot Cathartic Co. has issued its annual almanac, and copies were distributed at the annual meeting of the Podunk County Christian Science Association.

Dr. Slivers Coots has located in West Indianapolis, and the City Free Dispensary reports that they have not had a case in that neighborhood since Coots located.

Miss Mercy How, graduate nurse, has returned from a year's trip with her patient and has decided to give up nursing and live off the interest on the money she has saved.

Whenever your doctor friend tells you he is "tired out—all in—run to death—will have to go away to take a rest, etc.," look out! He is just about to ask you to lend him five.

The sad part of drug clerks who practice medicine by advising the purchase of this or that remedy, is that in eight out of ten cases they get as good results as the doctor who orders proprietaries.

Dr. Hamlin Derby, Oasis, Ind., has opened up his new mud baths. He sent to Indianapolis for six wet nurses for attendants, and got mad when the answer came back that his request was a good joke.

We heard a physician say the other day: "Skin diseases may be divided into two classes: those curable by sulphur and the ointments, and those all h—ll couldn't cure." Verily, brother, there is something in that statement.

Dr. Jabez Kerr, brother of Pinky Kerr, paid $110 for a modern office table. When it arrived he found it so complicated that he has sent his chauffeur to the factory for two weeks' instruction on how to operate it.

Dr. James Blaine Hammey, a recent graduate who has located at Whatnot, Ind., will soon take up a specialty. He is undecided whether to become a nose and throat specialist or open a manicuring and chiropodist parlor.

Dr. Slickstein, owner of the Hyrox Sanitarium at Bevey Point, has ordered a carload of Epsom salts to be used in concentration of the mineral water which he ships out daily. Doc reports his usual spring crowd present.

Miss Mercy Rains, of Indianapolis, who has been nursing Aunt Harriett Gobbs, of Kale Center, for over two years, has bought valuable real estate next door to the Gobbs' home and is looking about for other investments.

Dr. Tom Cash has returned from Arizona where he was physician to four mines and a thousand Hunyaks for the past five years. Tom's health is good but he now has a saddle nose which he says came from riding his mustang.

For the first time in thirty years old Dr. Pillar is taking himself seriously. He now sends out monthly statements and has succeeded in eliminating his practice to a real paying proposition worthy of the lifetime of effort he has spent.

Customer—"Look here! I bought a bottle of your hair restorer last week, and all I've got for using it is a couple of large bumps on my head."

Hairdresser—"Good gracious! I must have given you a bottle of our bust developer by mistake!"

While trying to learn the formula of a proprietary medicine during his visit to a prominent pharmaceutical house, Dr. Bud Squint was thrown out by the shipping clerk and severely bruised, thereby learning that it does not pay to be too curious.

Trenton B. Myers, M.D., has placed his ancient static machine in his dining room, and his wife says it keeps out the flies better than anything she has ever used during the summer time. This is the best report we ever heard of a static machine.

Eva May Dorbie, who left her home in Muncie with the intention of becoming a graduate nurse in a Terre Haute hospital, returned after having served three days. Eva says she doesn't see the need of three years' training just to learn to cook and scrub floors.

Osteopath.—Derived from an expression "Ask the old pathologist." Later changed to "Ask the old path" and then contracted to the one word: One who comes within an inch of fracturing your bones, yet does not, for from two to five bones per treatment.

We bet that the ratio of Dr. Wiley's enemies is to his friends as 1 is to 50,000, and his reasons, as publicly stated, for leaving the Department, have done more good toward awakening public sentiment and righteous indignation than a dozen court decisions and reversals.

Dr. Phinny Leeay of Muddleburg referred a case of fibroid tumor to a Fort Wayne surgeon for operation, and in the fee division which followed, Phinny got only $5 and the tumor. It made him so peevish that he refused to keep the tumor and expressed it back C. O. D. to get even.

It isn't always "personality" that draws the large vaudeville salary. Let it be whispered that the headliner is a noted immoral woman, and the matinees put out the S. R. O. sign — and 85 per cent. of the audience is composed of women. Some psychologist give us the answer.

E. Pfister Hardphist, osteopathic physician of Moro Hill, Ind., lost his spinal column model which he has had for twenty years. Doc suspects his collie dog as the guilty one, and has wired to Missouri for a new spine. He will take a short vacation until the new spine arrives.

The agent with an electrical equipment to sell to a doctor always has a longer list of cure-alls than Lydia E. Pinkham ever dreamed of, and the next one who drills "faulty metabolism" in our skulls stands a chance to slam the front door while going at the rate of sixty miles an hour.

Samuel McGinnis, who had his leg amputated, has left Milboy, Ind., en route to the Methodist Hospital, Indianapolis, to get his leg, which has been in cold storage since its removal. Sam uses automobile oil on the hinges of his artificial leg, but it doesn't stop all the squeak.

Adding a mortgage on his home to the savings of a lifetime, old Dr. Timeflize of Aviator, Ind., purchased a 90-h. p. touring car. When he had owned it for a week, the machine was burned to a useless mass of wreckage, and, after one long look, Doc stole silently away and quietly suicided.

Dr. Amos Jazoo of Bucketup, Ind., has purchased a complicated physicians' record system

of bookkeeping and for the past week his wife has been taking his meals to his office. If he doesn't get untangled in another week Doc thinks he will have the bank cashier explain the system to him.

An irate physician writes us to find why his automobile is named the Simplex. He says it has more complications than any case he ever had in practice. We sympathize with him, as our own one-lunger, which breaths H_2S from its exhaust, has had neurasthenia in an aggravated form since cold weather.

Dr. Bankirk of Twin Mountains, Ind., recently referred a surgical case to an Indianapolis surgeon and accompanied the case to the city. After the operation he was wined, dined, and treated in such a hilarious manner that it was two weeks later before he was able to hitch up and make a country call.

One of Indianapolis' promising young men died the other day, after having combined fifty years of life within twenty. The Ladies' Aid Society said his death was due to cigarettes, but the doctors who had seen the tibial brand knew differently. Poor old cigarette! How many burdens you have to bear.

Dr. Putsch, of Silver Beam, Ky., has purchased a typewriter and claims that, while collections are no better from typewritten statements, his patients seem better pleased to receive them. The machine has disadvantages, however. Doc could get by with his scrawl without proper spelling, but he is now wearing holes in a new dictionary.

The writer knows of a peculiar instance of the giving of "606." It was decided that a local chemist *make* the drug. It was given and it took all the optimism a large consultation could furnish to see whether the man would live. God is good and the patient did not die. However, let us use the *real* article, wherever it is necessary to use this delicate drug.

Recently an Indianapolis newspaper had for its leading editorial an article supporting the efforts of the A. M. A. for the national board of health and emphasizing the need of better ideals for the profession. It was a clear, clean-cut message of great worth and standing for the best in our profession. On the opposite page stood boldly out a paid advertisement of one of our most prosperous "specialists." Help!

Our state is none behind in the flourishing industry of the medical fakers. Quack sanatoriums report success in financial ways and the money continues to pour in to the elegant offices of our prominent advertising medical pretenders. No fear seems to pervade the ranks of these impostors that the state will interfere with them. Why not have a state board to license mind readers, clairvoyants, slate writers, etc.?

We are inclined to believe that those not in favor of abolishing bawdy houses and fighting social vice, are only those who may profit by their existence either politically or financially. Among them we include those physicians who sell "certificates" of hasty and unscientific examination of these women at the rate of 50 cents per "certificate." Cheap, you say, at 50 cents? Oh no! Considering the physician, we calculate they should charge about 10 cents.

Dr. J. Philbert, Asbury Grove, is fighting an alleged malpractice suit. In his complaint the patient sets forth that he employed Dr. Philbert to perform a Whitehead hemorrhoidal operation, and he has suffered great mental and physical woe and grief due to the fact that both tonsils were accidentally removed during the operation. Patient declares he is entitled to $40 damages. Evidently Dr. Philbert went up too high, as the anatomic setting of the tonsils is considerably above the field of operation for hemorrhoids.

Once in a while one of our young physicians tells us he did about $1,800 of business last year and collected only $130 of it. Well, whose fault is it? Make your arrangements in a more businesslike manner. It costs more to become a physician nowadays. Equipment is higher and more of it is required. Figure your services at par value and use business judgment in making collections. Would your coal man send you another ton if you refused to pay for the last ton? This "halo" business has been forced to the tall timber because of financial needs, and the sooner we are bold enough to admit it, the better off we will be. Physicians are now the only class of men in the business world who are consistent and thorough in being "easy marks."

NEWS, NOTES AND COMMENTS

Dr. Charles R. Crow, Indianapolis, is ill with locomotor ataxia.

The Thirteenth District Medical Society met at Plymouth, April 24.

Dr. T. R. Rice, Petersburg, was painfully injured in a runaway accident recently.

Dr. O. O. Nelson, Huntington, has recently returned from a month's stay in Florida.

Drs. E. D. Clark and Thomas B. Noble have resigned as members of the Indianapolis Board of Health.

Dr. H. K. McIlvaine, who has charge of the hospital in Huntington, is contemplating going to Florida.

Dr. O. J. Gronendyke, Newcastle, who has been seriously ill with erysipelas, is reported to be convalescent.

Dr. J. W. Birchfield, Indianapolis, has been appointed assistant to the secretary of the State Board of Health.

Dr. A. H. Shock of Huntington and Miss Edna Seward of Bloomington were united in marriage April 10.

Dr. Jean Holloway of Knightstown and Miss Miriam Wright of Spiceland were united in marriage, April 18.

Dr. J. McLean Moulder, Kokomo, has been elected superintendent of the Methodist Episcopal Hospital, Indianapolis.

The eighty-seventh semi-annual meeting of the Union District Medical Association was held at Liberty, Ind., April 25.

Dr. S. J. Young, Valparaiso, has been suffering from an infected thumb, the result of a needle prick in closing an abdominal wound.

Dr. F. L. Saylor and family, residents of Elwood for the past twenty years, left March 9 for Berkeley, Cal., where they will make their future home.

Dr. F. A. Tucker, Noblesville, delivered a public health lecture at the Memorial Opera House, Valparaiso, May 1, under the auspices of the city board of health.

The Tenth District Medical Society met in Michigan City, May 10. The LaPorte County Society was in charge of the arrangements and a good program was presented.

Dr. Charles G. Beall and Dr. C. E. Barnett of Fort Wayne have recently returned from Europe, where they went to do postgraduate work. Dr. Beall was absent nearly a year.

The Indiana University School of Medicine announces that a school of public hygiene will be opened, beginning with the fall term of this year. The course will be postgraduate and will lead to a degree of Doctor of Public Hygiene.

The Commercial Club of Huntington is behind a movement to establish a public hospital there. A hospital association is being formed, and a large number of the public-spirited citizens are assisting the enterprise by liberal subscriptions.

The Thirteenth District Society held its spring meeting at Plymouth, April 24. The afternoon scientific session was followed by a banquet in the evening. Dr. A. C. McDonald, Warsaw, was elected councilor for the district. South Bend was selected for the fall meeting.

Dr. Fred Brush has resigned the superintendency of the New York Post-Graduate School and Hospital, to become superintendent of the Burke Relief Foundation, and engage in the planning and organization of the convalescent hospital to be erected at White Plains, N. Y.

Dr. George Edwin Hunt, dean of the Indiana Dental College, Indianapolis, visited Valparaiso March 29 and delivered an address at the high school auditorium on "Oral Hygiene." The occasion was the annual public school exhibit of which a school health exhibit was a feature.

Dr. La Rue D. Carter, Richmond, has been appointed major, and Dr. Frank C. Robinson, Martinsville, captain; and Drs. John W. Emhardt and Blanchard D. Pettijohn, both of Indianapolis, have been appointed first lieutenants in the Medical Corps of the National Guard, Indiana.

At the meeting of the Twelfth District Medical Society, held at Fort Wayne, April 10, the following officers were elected: President, J. W. McKinney, Bluffton; first vice-president, S. V. Wilking, Roanoke; second vice-president, M. F. Klingler, Garrett; secretary-treasurer, L. T. Rawles, Huntertown.

A recent survey of Indiana by Dr. W. F. King, assistant secretary of the State Board of Health, shows that the death-rate from tuberculosis is greater in counties bordering the Ohio River than anywhere else in the state, Crawford County heading the list with a death-rate from this disease of 272.4 per 100,000.

During the six months which closed April 30 the bacteriologic laboratory of the State Board of Health examined 13,420 specimens of all kinds. This is more than has been examined in any one whole previous year. The work of the laboratory is growing so rapidly that the present quarters are now entirely inadequate. Unless something is done that will permit the State Board of Health to spend some of the laboratory appropriation for larger quarters outside the state house, further growth of the laboratory will be materially hindered.

The ninety-two counties of the state have been separated into five groups by the State Board of Health for the work of the five commissioners appointed by the governor to arouse interest in and prepare an exhibit for the International Congress of Hygiene and Demography. The north section is to be in charge of Dr. J. B. Berteling, South Bend; the north central section in charge of Dr. J. S. Boyers, Decatur; the central section in charge of Dr. S. E. Bond, Richmond; the southeast section in charge of Dr. H. H. Sutton, Aurora; and the southwest section in charge of Dr. J. H. Morrison, Hartsville.

The Richmond Memorial Celebration was held at Newtown, Ohio, April 22, in honor of Dr. John L. Richmond, who performed successfully the first recorded Cesarean section in the United States on April 22, 1827. A monument was dedicated to perpetuate the event, by the Ephraim McDowell Medical Society of Cincinnati. Drs. G. W. H. Kemper of Muncie, M. F. Porter of Fort Wayne and O. G. Pfaff and A. W. Brayton of Indianapolis attended, Dr. Pfaff giving an address on "The Obstetrician of To-day" and Dr. Porter giving an address on "The Early Pioneers in Abdominal Surgery."

The bacteriologic laboratory of the State Board of Health is now furnishing an outfit for taking cultures from the stools of suspected typhoid carriers, of persons suffering with obscure typhoid-like symptoms and from the stools in cases of dysentery or suspected food poisoning. As soon as supplies already ordered have been received these outfits will be placed in the hands of local health officers for distribution. At present the supply is limited, but any physician desiring such an outfit can obtain it on request to the superintendent of the laboratory. Physicians are especially urged to make use of this outfit in all house or other small circumscribed epidemics in which a possible carrier may be the cause. Every summer in Indiana there occur cases which show typhoid-like symptoms but do not give a clear-cut positive Widal test. It is to be hoped that cultures from many such cases will be sent to the laboratory inasmuch as it is desired to make a special study of such cases during the coming summer.

Since March 26, the following articles have been accepted for inclusion with New and Nonofficial remedies:

Colon Vaccine (Parke, Davis & Co.).

Gonorrheal Vaccine (Combined) (Parke, Davis & Co.).

Typhoid Vaccine, (Prophylactic) (Parke, Davis & Co.).

Furunculosis Vaccine (Parke, Davis & Co.).

Combined Bacterial Vaccine (Parke, Davis & Co.).

Acne Vaccine (Parke, Davis &Co.).

L-Suprarenin Synthetic Bitartrate Tablets (Victor Koechl & Co.).

Novocain Tablets "D" (Victor Koechl & Co.).

Novocain Tablets "F" (Victor Koechl & Co.).

Novocain Suprarenin Tablets "A" (Victor Koechl & Co.).

Novocain Suprarenin Tablets "B" (Victor Koechl & Co.).

Novocain Suprarenin Tablets "C" (Victor Koechl & Co.).

Novocain Suprarenin Tablets "E" (Victor Koechl & Co.).

Proferrin (H. K. Mulford Co.).

Proferrin Tablets 1 gr. (H. K. Mulford Co.).

Proferrin Tablets 2½ gr. (H. K. Mulford Co.).

Proferrin Tablets 5 gr. (H. K. Mulford Co.).

Meningo-Bacterin (H. K. Mulford Co.).

Tyramine (Burroughs, Wellcome & Co.).

Tuberculin-Rosenbach (Kalle & Co.).

SOCIETY PROCEEDINGS

FORT WAYNE MEDICAL SOCIETY

Meeting of March 5

Society met at Hope Hospital, with twenty-five members present. Clinical night. Reading of minutes dispensed with. Meeting in charge of Drs. M. F. Porter, G W. McCaskey and B. W. Rhamy.

Dr. Porter: Case 1.—Pyosalpinx removed from patient sixteen years after vaginal drainage of pelvic abscess. Specimen containing about an ounce of pus presented. Removed from patient who sixteen years prior had had a vaginal incision for a suppurating ectopic pregnancy. After operation patient made rather slow recovery, which was not complete until two years later, when there was spontaneous rupture of an abscess into vagina. After this rupture recovered what she considered perfect health, though still had lump in right side. Feb. 13, 1912, admitted to hospital suffering from severe pelvic pain and tenderness, with fever; commenced a few weeks prior to her entrance and gradually increased until she was bedfast. Operation revealed, in addition to right pyosalpinx, a left hydrosalpinx. Recovery uneventful; will be discharged tomorrow. Case of interest chiefly as illustrating comparative innocuousness of pus tubes on one hand, and on the other the danger a patient incurs in carrying them.

Case 2. — Appendicitis associated with colitis. Woman, aged 25, married, admitted Feb. 13, 1912. Family history shows both cancer and tuberculosis. No serious illness since childhood. Menses came at 16 and were painless and regular until last three years, when has menstruated every three weeks. One miscarriage at 3½ months three years ago. Alternate constipation and diarrhea until five months ago; since then bowels regular until present attack; now constipated. Three and a half years ago had attack of pain in right lower quadrant of belly with vomiting; similar attacks occasionally since, but none serious until present one, coming on a week ago with severe pain, vomiting and tenderness. Heart and lungs normal. Marked tenderness and rigidity over right lower quadrant, especially over McBurney's point. Rectal examination shows tender mass in region of right broad ligament. Operation disclosed hydrosalpinx duplex and appendicitis; closed without drainage; uninterrupted recovery until fifth day when complaint made of headache, chilliness and general aching. Acute attack of colitis with frequent bloody, mucous stools, lasting four days. Patient will leave hospital tomorrow. Dr. Porter emphasized Gerster's contention that a surgeon will not do his whole duty if he contents himself with removing appendix only in patients with chronic and recurrent appendicitis, but that he must, in addition, look for and divide if necessary any obstructing bands such as Lane's kink, Jackson's veil, etc., resulting from pericolitis, and then institute treatment looking toward cure of colitis.

Case 3.—Osteomyelitis of hip. Patient, girl, 11 years old, admitted to hospital Feb. 20, 1912. Father died of pneumonia at 67; mother living and well; three brothers dead, one of convulsions and two of diphtheria; three sisters dead, one stillborn and two premature births; maternal uncle died of tuberculosis. Patient had measles at 5 and diphtheria at 6, pneumonia four times. Present illness came on with sudden excruciating pain down right side of face the day after Christmas; white zig-zag line down side of face lasting thirty-six hours; neck stiff and turned to left. On January 3 seized with severe pain in left ankle, which has persisted ever since, but now better. Went to bed complaining of ankle pain, stiffness and aching of left leg and thigh. Three weeks ago leg began to draw up suddenly, violently and frequently (twelve or more times an hour) accompanied by excruciating pain; at one time this twitching lasted five and a half hours. Leg never been swollen or red; no fever until two weeks ago, when fever developed gradually, higher in morning, at one time 103; chills twice a day for three days; constipation. Running daily temperature since admission to hospital, from normal to 104. Screams if anyone approaches bed. Face covered with scabs due to scratching. Part of hip exposed, showing swelling; palpation detects fluctuation. Typical case of osteomyelitis. Blood examination showed 18,600 white cells with 85 per cent. polynuclears; Von Pirquet test negative. Blood culture showed staphylococcus. Treatment when focus of inflammation can be located, consists in early operation and drainage. Operative treatment advised in this case and will be carried out. Had this been done some time ago, prognosis would have been better. Early diagnosis and prompt operation only means of saving these patients useful limbs with a minimum of suffering and invalidism.

In discussion of Dr. Porter's last case, Dr. Rawles reported an interesting case. Initial lesion was an influenza. Localized in tibia two inches below knee-joint; opened and drained. Developed multiple skin abscesses over entire body, and an abscess in right lung. Complete recovery to all appearances occurred following this infection. A short time later developed arthritis left knee and left shoulder-joint. Staphylococci obtained from blood culture at time of arthritis, hemoglobin 60 per cent. Asked Dr. Porter if arthritis develops often after osteomyelitis.

Dr. Porter: The case reported by Dr. Rawles a typical one. Blood carries the infection. It is a multiple septic thrombophlebitis. Arthritis may occur early or late. If late it is a pyemic symptom.

Dr. Beall asked Dr. Porter why he connected the colitis with the removal of the appendix in the case reported.

Dr. Porter: Extension of inflammation by contiguity of tissue. One patient died of ileocolitis. All cases of chronic appendicitis are accompanied by colitis.

Dr. McCaskey presented a case of arterioselerosis combined with diabetes. Case 2. Pernicious anemia.

Dr. Rhamy presented the following specimens: Horseshoe kidney; congenital multiple dermoid cysts of kidney; single large retention cyst of kidney from obstruction by calculus in a tubule; kidney indurated from multiple calculi in tubules—small multiple cysts; kidney, hydronephrosis or cystic dilatation of whole from obstruction of ureter; mixed sarcoma of kidney; medullary cancer of tubular epithelium invading ureter; epithelioma of pelvis.

Epithelioma of Pelvis.—Man, aged 44, married, cement laborer; father died of Bright's disease at age of 77; mother died of dropsy (kidney disease) at 68; brother died of kidney disease at 22; half brother died of kidney disease; sister died of puerperal septicemia. Youngest brother paralyzed. Aunt and uncle died of tuberculosis; history of exposure to tuberculosis. Health impaired for two years. During last year had pain in bowels and much diarrhea; hemorrhoids. Two months previous to death anemic, loss of appetite, hemoglobin about 60 per cent., pain and tenderness in bowels with chills and fever. In third week noticed pain in left side. Examination showed tumor in left lumbar region, fixed and painful on pressure; grew rapidly and became quite large; bladder disturbance; pain and frequent urination. Some discomfort in left side for five years. Had gonorrhea. Cystoscopic examination: Left ureteral opening surrounded by a ridge with many trabeculæ around about; polyuria on right side; scanty secretion from left. Urinalysis: Specific gravity 1.010, acidity 15 degrees, albumin 2 per cent., sediment 1 per cent. (blood and pus, and numerous kidney and squamous cells). Few staphylococci; no tubercle bacilli. Diagnosis, post-mortem: Mesothelioma (hypernephroma) malignancy developing rapidly after an acute infection of respiratory tract.

Medullary cancer of stomach perforating wall of greater curvature and growing into and involving mesocolon: Man, aged 56. Stomach distress, more or less, for twenty years; no treatment except for occasional attacks of pain; not confined to bed until four weeks before death. At time of post-mortem showed emaciation, hardness of radial arteries; abdomen distended, and tumor mass over region of liver and stomach, most pronounced over right hypochondrial region; legs edematous. Post-mortem showed extensive broken-down metastatic growth in liver with primary tumor in greater curvature of stomach which microscopic examination showed to be a medullary cylindric cell carcinoma of stomach; tumor had perforated stomach wall, involving upper fold of mesocolon.

Application of Dr. Wiley Trimler presented and favorably acted on by board of censors. On ballot Dr. Trimler failed to receive required number of votes for election.

Report of committee on best plan to get out weekly postal cards to effect that the cards can be printed for $1 per week. Motion carried that report be accepted.

Adjourned. G. Van Sweringen, Secretary.

Meeting of March 12

Society met in regular session in County Assessor's office with fourteen members present.

Clinical cases. Dr. E. A. Crull: Alopecia areata. Boy, 15 years of age; had measles and mumps; family history good. In December had little scab on the head which has been getting larger and larger. Various local applications have been tried with no result. Two years ago had a smaller spot which cleared up under applications of bichlorid.

Dr. Bulson referred to case of man who had this condition for a number of years. Finally recovered. Believes that mercury ointment is of service, and suggests stimulating applications.

Dr. J. C. Wallace does not believe in this case there is any danger of contagion; no indications as are found in ringworm; no stumps of hairs, etc. Reported similar case where hair was restored with electricity.

Dr. Duemling reported third case of gunshot injury of the stomach and colon which has occurred in his practice.

Dr. Bulson reported case of woman 36 years of age. One and a half years ago could not read well; thought she needed glasses. Found on test compound astigmatism. Glasses adjusted; worn for one year. Last October noticed fogginess of vision. No other symptom. On examination vision very nearly normal. On examination of fundus found several pin-head spots and a delicate haze over the macular region. Blood-pressure 190. No albumin or casts in urine. Put on iodids and cut down diet. In a couple of months spots became more pronounced. Blood-pressure 200. Lately a very few casts found in urine. Yesterday she returned with a blood-pressure of 220 and spots quite marked. Vision better, but that peculiar beaded appearance of fundus in arteriosclerosis was present. Dr. Beall examined heart which showed an increase of cardiac dulness; apex beat 1 inch outside of nipple line; impulse quite marked; aortic second sound accentuated. No doubt hypertrophy of left ventricle. This woman in great danger of an apoplexy.

Dr. Rhamy, in discussing the case, said that the examination of this patient's urine showed low specific gravity and polyuria. Seemed like the typical urinary finding in these cases.

Dr. Rawles presented case of woman 30 years of age, who died suddenly following labor. Had been in perfect health. Dr. Rawles had treated her in her second month. Examined urine monthly and twice in the last month. She was in labor 36 hours. Doctor in attendance called Dr. Rawles. Head was engaged in anterior position. Forceps applied. Delivered, and while waiting for cord to cease pulsating, patient gave a few gasps and was dead. Two hours after death, held a post-mortem and nothing abnormal could be found. She was not put profoundly asleep.

Dr. Carey read a paper on "Influenza in Children."

Opening the discussion, Dr. Beall said that the organism of influenza grows better in the presence of other organisms. The large proportion of measles and scarlet fever and chicken-pox had the organism in the blood during the disease. Nursing children are somewhat immune to influenza. No efficient prophylactic measure has yet been devised. The inoculation of dead bacteria will produce immunity for a short time. Has seen heart block develop during an attack of influenza which passed away. Complications are the most important in influenza. It is impossible to recognize these complications early. In the meningeal form it is necessary to differentiate it because we have a serum for the cure of the intracellularis infection.

Dr. Phillips had a case of influenza in baby 7 months of age. Baby had suppurating ear. Symptoms only noted for three hours until the ear discharged.

Dr. Bulson: We must not lose sight of the fact that many cases of influenza are attacks of catarrhal inflammation. Many more pneumococcal infections of the

middle-ear than influenzal. There are two distinct features present in influenza; first, patient is more prostrated and the loss of appetite is more marked; second, the temperature is usually higher than in ordinary cases, and they are more likely to have involvement of the other sinuses. Have seen mastoiditis follow without any involvement of the drum. Advocates early incision of the drum in these cases.

Dr. Weaver: Would like to ask Dr. Beall who his authority is that slight immunity is conferred by influenza. Had always thought that one attack predisposed to another. Dr. Dodds, at state meeting, described method of conferring immunity by giving patients a mild infection with the influenza bacillus.

Dr. Rhamy emphasized Dr. Beall's remarks as to the vaccine treatment of acute infections. It would be worse than useless to try a vaccine in the treatment of influenza. He also feels that we should be more careful in calling all infections accompanied by catarrhal symptoms influenza. Some of them are simple infections.

Discussion closed by Dr. Carey.

Account of Secretary of $11.45 was allowed.

Announcement of the coming on April 23 of Dr. Eisendrath was made by Secretary.

Motion carried that the Eisendrath meeting be held at the assembly room, with a social session afterward at the Commercial Club.

Motion carried that Dr. Porter be delegated a committee of one to reply to the lecture of the representative of the American League for Medical Freedom.

Adjourned. G. Van Sweringen, Secretary.

Meeting of March 19

Society met in regular session in assembly room with twelve members present. Minutes of preceding meetings read and approved.

Clinical cases. Dr. G. Van Sweringen reported further on the case of eclampsia related two weeks ago.

In the discussion Dr. Weaver asked how frequent eclampsia is after the first pregnancy.

Dr. Morgan had seen two cases of eclampsia, first babies, and not in subsequent pregnancies, nor did anything develop in the urine at this time.

Dr. Wilking has used veratrum viride in the treatment of these cases and wants to know how its action is accounted for.

In reply to Dr. Wilking's question, Dr. Porter said that veratrum diminishes the irritability of nerve and muscle tissue and bleeds patient into his own vessels.

Dr. Rawles: In eclampsia the main point is the elimination of toxemia and veratrum is as good as bleeding.

Dr. Crull has had only one case of eclampsia, but has since delivered this woman twice without difficulty.

Dr. Crull read a paper on "Pulmonary Edema."

Opening discussion, Dr. Morgan believes it is always a secondary disease; probably never primary. Due usually to some defect of the right ventricle. Is a hard diagnosis to make. Believes it might be rather difficult to differentiate between pleurisy with effusion and edema of the lung. Prognosis will be largely that of the cause. Advocates bleeding in cyanotic cases.

Dr. Porter: In certain surgical procedures, particularly in goiter where the field is apt to be obscured, it is not unusual to bleed the patient into his own vessels by using a tourniquet about the thigh or about all four extremities. These dam back the blood into the extremities and less hemorrhage ensues. Seems to be a practical way of dealing with cases of pulmonary edema. This condition is a symptom and not a disease. The temperature of the individual may tell you the difference between pulmonary edema from infection and one from mechanical condition. In the great majority of pleurisies in which we are called on to aspirate, we are dealing with tuberculous condition, and perhaps this accounts for the opinion that all fluid should be drawn off. Difference between the percussion note in edema of the lung and that of pleural effusion is that one is flat and the other is dull.

Dr. Beall: The most satisfactory form of pulmonary edema to deal with, if any can be thought of as satisfactory, is the paroxysmal pulmonary edema of Stengel, as reported in the *American Journal of Medical Sciences*. In this particular form the individual has a number of such attacks. Dr. Stengel forms some very valuable conclusions in this type of cases: First, that a good dose of morphin is the best remedy, with or without atropin. Morphin acts better with atropin than alone, and it works better than atropin alone. Has had one case of pulmonary edema, and it was remarkable how soon this case was relieved with a hypodermic of morphin. The pathology of the paroxysmal type is due to myocardial degeneration with general arterial change and a special change in the vessels of the heart muscle.

Dr. Weaver: Dr. Morgan raised the point of differential diagnosis between pleurisy with effusion and pulmonary edema. In most cases of pulmonary effusion the line of dulness is movable unless it is a case of encysted pleurisy. Would like to ask if Dr. Crull has found any reference in the literature to adrenalin in these cases of pulmonary edema. It is useful in bronchial asthma. Seems rather paradoxical but the blood-pressure in bronchial asthma is lowered by adrenalin. Has used it once in a case of this lesion with marked success.

Dr. Crull, closing, said with regard to emptying all the contents of an empyema, thinks that all the fluid should be drained. Gerhardt thinks that the occurrence of pulmonary edema is more frequent after withdrawing the entire amount of fluid.

Applications of Drs. Rice and Underwood read and given to the board of censors.

Adjourned. G. Van Sweringen, Secretary.

INDIANAPOLIS MEDICAL SOCIETY

Meeting of April 2

Society called to order by president, with 38 members present. Minutes of last meeting read and approved. Report of council recommending election of Drs. Willis D. Gatch, W. S. Given and Frederick Hershman was accepted. Motion carried that hours of meeting be changed to 8:30 until 10:30.

Case presentations.

Dr. F. C. Heath. Sarcoma of eye. Patient, woman, aged 50. Prominent eye with severe pain on first appearance. Enucleation advised. Contents of orbital space removed and curet and cautery used after enucleation. Eyelids not removed. Prognosis fair.

Dr. M. N. Hadley. Adenoma of thyroid—post-operative. Patient had typhoid three years ago and not well since. Abscess over right scapula followed typhoid. Ten years ago tumor appeared at site of thyroid. After typhoid tumor decreased in size. Two years ago began to have difficulty in swallowing but no dyspnea. Difficulty in swallowing grew worse. No evidences of hyperthyroidism. After removal of entire

right lobe of the gland dysphagia disappeared. The dysphagia without dyspnea is explained by arrangement of capsule of thyroid about esophagus.

Dr. C. F. Neu. Patient, man aged 30. Injury to right leg last July, followed by weakness and atrophy. Arch of foot exaggerated and unable to extend leg after flexion. Rotation outward and inward, adduction and abduction normal. Failure to flex thigh on abdomen. History of alcoholism and gonorrhea. Positive Wassermann. General health good. Since paralysis is diffuse, trouble must be in anterior horn. Diagnosis ascending peripheral neuritis traumatic in origin. Treatment with iodids unavailing.

Dr. F. O. Dorsey. Patient, man, colored, aged 57. Family history indefinite and personal history of alcoholism. Pneumonia seven years ago. Pain in cardiac region, shortness of breath and loss of strength during last eight weeks. Extreme shortness of breath and insomnia for week. Systolic blood-pressure 158, diastolic 100; irregular heart action, capillary pulse and venous pulsation. Heart greatly enlarged; no valvular lesion. Diagnosis, arteriosclerosis with compensation until recently when symptoms appeared.

Dr. J. V. Reed. Patient, man, aged 57. Injury to face six years ago, followed by extensive ulceration. Microscopic examination shows malignancy. Such tumors grow slowly and do not metastasize. Neighboring organs may be involved. Attention called to difference between such tumors on upper part of face and those situated lower. Cauterization and use of *x*-ray in cases such as one presented will give relief and prolong life.

Dr. John R. Newcomb presented a mechanical device for enabling the blind to write.

Discussion. Dr. Lindenmuth: Treatment of malignant conditions about upper part of face by *x*-ray is very successful. Case presented by Dr. Reed has extensive involvement and may not do well.

Adjourned. Homer R. McKinstray, Secretary.

Meeting of April 9

Society met in regular session with 35 members present. Minutes of previous meeting read and approved. Motion carried that society meet with State Health Conference May 14.

Dr. H. R. Allen read a paper on Repair of Semilunar Cartilages. In part the author said that the following method of treating broken semilunar cartilages is advised providing permanent hypertrophy has not been established: Knee-joint should be gently manipulated until painless extension is secured. In extreme extension sutures should be passed from above downward through the external margin of each semilunar fragment that has a tendency to produce knee-locking. With traction on these sutures, knee should be rapidly and carelessly flexed and extended. If no locking occurs, knee should be flexed at 90° and an interrupted row of sutures one-fourth inch apart should be taken. Ends of sutures should be tied to an outside straight edge or over an elastic tube or they should each be secured to elastic tractors. Purpose is to let them slowly out through external margin of semilunar and adjacent capsular ligament. In the wake of each cutting suture, granulation tissue is followed by cicatricial tissue and the fragments of cartilage firmly anchored to capsule by scar tissue, and cannot be crushed between the bones. Extension of knee-joint should continue until cicatricial tissue is established. Sutures do not cut semilunars entirely across, nor do they cut entirely through the skin. After twelve years of experience with this method, it is recommended as safe and dependable. It obviates opening the joint.

Discussion. Dr. Hadley: The operation has its merit in that knee-joint is not opened and a local anesthetic can be used. Possibilities of infection.

Dr. T. B. Eastman: The operation bears analogy to old operation of fixation of uterus, and might have same objections made to it.

Dr. Henry: What length of time does the treatment require? Dr. Allen: Two or three weeks.

Dr. Jackson: Is there a sense of traction when flexion is begun? Dr. Allen: Yes, but it disappears in short time. Open operation liable to leave catgut in joint. By operation described cartilage is not torn. A mercury bichlorid dressing prevents infection. In answer to Dr. Eastman, experience has shown that the cartilages are held permanently.

Adjourned. Homer R. McKinstray, Secretary.

Meeting of April 16

Clinical meeting at Central Hospital for Insane. Meeting called to order by president with 79 members present. Minutes of last meeting read and approved. Dr. Wynn reported that proposed arrangement for the meeting of May 14 could not be completed, and society voted to withdraw arrangement for special meeting.

Symposium on Paresis. Dr. Max A. Bahr read a paper covering Symptomatology and Diagnosis and presented a number of cases representing various phases and types of the disease, demonstrating the differential diagnosis. Dr. C. F. Neu read a paper covering Etiology and Pathology. Dr. F. F. Hutchins discussed Care and Treatment.

Discussion opened by Drs. A. E. Sterne and J. A. McDonald.

Refreshments served at a late hour by Dr. Edenharter.

Adjourned. Homer R. McKinstray, Secretary.

Meeting of April 23

Society called to order at 8:30 by vice-president, Dr. Link, with 36 members present. Minutes of last meeting read and approved. No action taken on proposed consolidation of telephone companies.

Dr. Brayton reported exercises at the time of erection of a monument at Newton, Ohio, in honor of Dr. John Lambert, Richmond, who did the first Cesarean section.

Secretary read a letter from Dr. G. W. H. Kemper offering some medical books now out of print and of value historically. Society voted to accept the books and store them in city library.

Dr. Ada Schweitzer read a paper on Public Health and Conservation of the Human Race. The author said that many countries have given much attention to eugenics and euthenics, the former subject having only recently attracted notice in the United States. Nowhere is its consideration more important. Each science governed by well defined laws which in their practical application reaet upon each other. If a person lack certain capabilities, as efficiency or love of work, no amount of training can give him these characteristics, though under supervision his condition may be improved. Given a person of highest capabilities, he cannot become a useful member of the race if compelled to live under such unfavorable conditions that he eannot develop them, or if he contracts diseases

that render him sterile, or if he starve to death. Even the best germ-plasm must be given its opportunity to keep up to the standard. The problem of eugenics is preservation and improvement of best stock, elimination of worst. Must consider the race problem, immigration, race suicide, celibacy, late marriage, infant mortality, and degeneration in their bearing on this problem. The euthenist considers control of environment, nurture and training. Indiana has laws based on both. Since many of these considerations are nation wide in their scope, ought not the national government have the power to legislate along these lines? Much work being done by government in its various departments. The work under the recently established child's bureau is likely to yield good results immediately and to furnish valuable statistics for our future government. Plea for cooperation of all, especially physicians.

Dr. C. S. Woods read a paper on the subject, Legal Aspects of Eugenics. Probable legislation and the advantages to be gained were discussed and present laws were reviewed.

In the discussion, Dr. A. S. Jaeger asked if the public has the right to say who is fit. Some of the brightest minds have resulted from union of unfit, according to present standards. Environment very important in training of child. Laws useless unless public is previously educated. National board of health would be of great benefit.

Dr. Link: Theoretically it is right to limit reproduction in unfit. Public health regulations are beyond question. Useful citizens are often produced by education of criminals.

Dr. Brayton: The efforts made in England to control racial development were mentioned. In general the course of the race has been one of development.

Dr. Hoskins: Influence of physician in program of eugenics is great, and he has a great responsibility. Outlook encouraging. Scientific and not emotional action is necessary.

Dr. Shimer: Education and environment are powerful. Economics control a large per cent. of the population. Defectives cannot be made safe fathers and mothers. Criminals transmit their tendencies and should be sterilized.

Dr. Neu: Environment, education and training will often control heredity. Physicians should give advice to parents, but parents are often unable to control their children. Care of defectives very difficult. The question largely one of education. A large number of individuals cannot harmonize themselves with their surroundings and need education. Defectives should be cared for by the state.

Dr. Schweitzer, closing: Caution is necessary, but definite laws have been established. History shows that valuable characters may have undesirable traits. Education is necessary.

Adjourned. Homer R. McKinstray, Secretary.

DELAWARE COUNTY

Meeting of April 5

The regular meeting of the Delaware County Medical Society convened in the lecture room of the public library, Muncie, April 5. The speaker of the day was Dr. D. M. Green, who spoke on "Gall-Stone Disease."

In part Dr. Green said that there is a distinct difference between gall-stones and gall-stone disease. The latter may be, and in many cases is, the precursor of gall-stones, which is responsible for biliary colic in by far the greater number of cases. Stagnation of bile in gall-bladder and bile-passages is the agency directly answerable for this condition. Congestions and inflammations of the portal area, infections of bile-ducts and gall-bladder, and faulty bile formation in liver itself on one hand, with lack of proper exercise, overindulgence in food and constipation and auto-intoxication on the other, tend to produce a bile stasis. Relief of this condition, for the most part, depends upon a reversal of the forces which produced it. In other words, removal of inciting cause is most important feature in treatment of gall-stone disease. Surgery has an undisputed place in the treatment of gall-stones. In the care of the condition which *produces gall-stones* its place is questionable. Its use is limited strictly to those cases in which obstruction from stone or other cause, appears. Where there is no obstruction, however, treatment limits itself strictly to the medical, hygienic and dietetic. Practically all sufferers from gall-stone disease suffer also from constipation or its kindred ailments. Constipation is the chief cause of bile stagnation. The relief of constipation depends upon frequent, regular and thorough bowel evacuation, reduction of the quantity of food ingested to near the amount actually demanded by physiologic processes, plentiful water drinking and sufficient natural exercise, which may be provided by walking. The action of these measures, in addition to regulating elimination, is to thin the bile. This is also the aim of medication in gall-stone disease, but with the addition of effort to secure sterilization of biliary tract. Medication in gall-stone disease, to be effective, must produce one or more of the following results: Elimination, sterilization and sedation of biliary tract, thinner bile, a greater bile secretion and solution, elimination or the rendering symptomless of concretions. Principal constituent of bile concretions is cholestrin. Cholestrin is never deposited in gall-bladder except during biliary stagnation or infection. In thin bile it is held in solution, and by an increased flow of thinned bile it is again dissolved. Medication which does not contribute to this effect on bile formation has no solvent action.

Discussion by Drs. Cecil, Spurgeon and C. H. Ball, followed by general discussion.

Adjourned. H. D. Fair, Secretary.

Meeting of May 3

The regular meeting of the Delaware County Medical Society was held in the auditorium of the public library May 3. One of the features of the day was the report of the secretary regarding his experience of the day before with the "United Specialists," who for a month preceding their appearance in Muncie had advertised in the daily papers their ability to cure everything in the category, from granulated eyelids and deafness to weak lungs, leg ulcers and bed-wetting.

On the morning (May 2) of the arrival of these marvelous (?) experts, the secretary obtained their names, Dr. W. A. Wenz and J. G. Caldwell, from the hotel register and immediately procured a warrant from the county prosecutor for their arrest on the charge of practicing medicine without a license. Several intended patients who had been the first callers on the doctors were interviewed by the secretary, who obtained an account of the methods of the quacks, who advertised "everything free but the medicine." This evidence was secured in order that a charge of obtaining money under false pretenses might be filed in the event that the first charge did not hold. As soon as their office was opened and patients began to arrive.

they were taken by a constable before a justice of the peace who placed them under bond pending a later hearing. They were unable to give bond so were kept under custody all day long.

Both men testified that only Wenz was or pretended to be a physician, Caldwell being secretary and general assistant, and that they were representing a Detroit firm. Wenz had in his possession a license issued by the clerk of Marion county, and dated 1899.

After the noon hour Wenz engaged an attorney who later came to the secretary asking that the fellows be released on the promise that they should leave the city and never return. After a consultation with Dr. W. A. Spurgeon, vice-president of the State Board of Registration and Examination, who was actively interested in the situation, it was decided to let them go, considering the fact that Wenz had a state license and that they had not closed a contract nor obtained any cash from prospective patients. Dr. Spurgeon gave them a heart to heart talk, and on parting Dr. Wenz promised that he would quit the business.

From persons interrogated it was learned that the method employed by these quacks was to demand $25 for a month's supply of medicine (?). If this sum was not fortheoming, a special confidential price of $20 was granted, and if this generous proposition was not quickly accepted a reduction to $15, $12.50, or even $10 would be made. If the victim did not have that much money with him, ALL HE HAD would be accepted with a note for the balance.

Adjourned. H. D. Fair, Secretary.

HENDRICKS COUNTY

The regular meeting of the Hendricks County Medical Society was held in Danville April 26. On invitation the county Anti-Tuberculosis Society met with the Hendricks County Society.

Dr. C. A. White read a paper in which he advocated the establishment of a federal department of health, whose head shall be a medical man, and a member of the president's cabinet, and suggested that Indiana could furnish the man, in Dr. Harvey W. Wiley.

Dr. Chas. P. Emerson, Dean of the Indiana University School of Medicine, spoke in a most pleasing and instructive manner on the subject, "Tuberculosis; the People's Responsibility."

Dr. Beasley, of Rockwood Tuberculosis Sanitarium, is president of the county Anti-Tuberculosis Society, with a vice-president in every township.

Adjourned. Wilson T. Lawson, Secretary.

KOSCIUSKO COUNTY

The regular meeting of the Kosciusko County Medical Society was held April 30, the meeting being called to order by President McDonald.

Dr. F. J. Young, of Milford, made a report from current literature on the eye, ear, nose and throat.

Under the heading of Clinical Cases and Case Reports, the following physicians took part: Drs. Bowser, DuBois, Landis, Young, Yocum, Thomas, Shackelford, McDonald, Anglin, Heffley and Howard.

Dr. J. H. Bowser, of Syracuse, read a paper on "The Blood." Discussion by Drs. Anglin, McDonald, Howard and DuBois.

Adjourned. C. Norman Howard, Secretary.

MONTGOMERY COUNTY

The Montgomery County Medical Society met in regular session at the Y. M. C. A. building in Crawfordsville, April 16, with twenty-four physicians present. At 6 p. m. a fine supper was served and thoroughly enjoyed by all. Men met for the first time who had practiced in Montgomery County for years. The only way those absent can know what they missed is for them to attend the May meeting, which promises to be greater than any previously held.

At the business session three new names were added to the Society's membership. Dr. W. H. Ristim, of Crawfordsville, was reinstated, and Dr. J. B. Griffith, of Alamo, was reinstated from Posey County. Dr. Dees, of Browns Valley, came in on certificate from a county in Tennessee.

The committee on recommending periodicals to the public library committee in Crawfordsville was continued.

The Entertainment Committee was continued for the next meeting.

Dr. P. J. Barcus presented a paper on "Gastric Ulcer." In part the author said that among the causes of gastric ulcer are abrasions of the mucous membrane of the stomach or duodenum over an area of tissue whose vitality is lowered, perhaps by embolus or thrombus. Eighty-six per cent. of gastric ulcers are found on the posterior surface of the stomach and near the pylorus. Contrary to former ideas, a larger percentage of gastric ulcers is found in men. Trauma often a causative factor. Healed ulcers cause the so-called "hour-glass" stomach by the contraction of the connective tissue in the process of healing. Hemorrhage occurs in about one-fourth of all cases of gastric ulcer. In the symptoms and diagnosis of gastric ulcer, four diseases of the alimentary canal are to be thought of: appendicitis, cancer, neurosis and ulcer. All these bring the patient to the doctor for stomach trouble. Biliary troubles may be mentioned. Dr. Barcus emphasized the cardinal symptoms of gastric ulcer thus: Pain and especially the time of it. If one hour after eating, ulcer is likely located near cardiac end, and if four hours after eating, ulcer is at pyloric end. Pain usually relieved by food or washing the stomach. Case history more important than physical examination. Another symptom is burning of stomach and eructation of hot, sour, acid, bad-tasting gases. Gastric ulcer invariably gives a sore, tender spot posteriorly and to left of spine. Complications may be either intragastric or extragastric, most frequent of the former is obstruction at pylorus, and of the latter, perforation with adhesions and their consequences. Statistics at the Mayo clinics show that about 60 per cent. of all cases of cancer of the stomach and duodenum come on an old ulcerous site. Prognosis depends upon location of ulcer. Of those located posteriorly one in sixty perforate; of those located anteriorly one in six perforate. Of the treatment, 90 per cent. require medical treatment and 10 per cent. surgical treatment. Rest, the degree depending on the severity of the case, is the first step. Food may be given by enema. Milk and similar liquids are best food. Ice locally and internally beneficial. Morphin and adrenalin for hemorrhage and severe pain. Large doses of bicarbonate of soda are helpful. Bismuth subnitrate sometimes used. Bacterial vaccine therapy has been tried but no definite reports to date. Surgery indicated if repeated severe attacks occur or there are obstructions or other complications.

Two methods of surgery used, excision and gastro-enterostomy, the former rarely. Emphasized necessity of avoiding the "vicious circle" when doing gastro-enterostomy.

Discussion by Drs. Ensminger, of Crawfordsville, and Batman, of Ladoga. Besides dwelling on the points made by the author, the discussants emphasized the need of more post-mortem examinations that we may better understand the pathology of the digestive organs. Dr. Batman spoke of lavage as being important in some cases. General discussion. Several interesting cases reported, one in which a violent hemorrhage was checked by use of ice. Patient recovered and living today.

Adjourned. J. L. Beatty, Secretary.

PIKE COUNTY

The Pike County Medical Society met in regular session at the office of Dr. Imel, Petersburg, April 11, with vice-president in the chair. Minutes of previous meeting read and approved. Dr. W. R. Davidson, of the Vanderburgh County Medical Society, was a guest.

Dr. Rice presented a patient with arteriosclerosis, and Dr. Davidson gave a blood-pressure test—pressure 260. Dr. Davidson gave an interesting talk on the use of the sphygmomanometer and its uses in making diagnosis.

Dr. F. R. Rice discussed the anatomy and physiology of the throat and adnexa. Dr. J. F. Kime discussed the pathology and sequelæ of tonsillitis, and Dr. Imel discussed the various treatments, both surgical and medicinal, of tonsillar troubles and their complications.

Adjourned. E. S. Imel, Secretary.

ST. JOSEPH COUNTY

The second annual social session of the St. Joseph County Medical Society was held at the Oliver Hotel, South Bend, at 6:30 p. m., April 1. After the banquet, Dr. F. P. Eastman, acting as toastmaster, called on the following: Dr. C. C. Terry, "The Doctor;" Dr. R. B. Dugdale, "The Babies;" Mrs. J. B. Berteling, "The Ladies;" Dr. W. F. Howat, Hammond, "The Relation of the Practitioner to the Public:" Dr. E. H. Hart, WuHu, China, "Practice in China."

After the banquet a social hour was spent in the rotunda, and the general opinion was that this was more of a success than the affair of last year.

Present fifty.

R. C. Shanklin, Secretary.

Meeting of April 2

Society met in regular session with seventeen members present. Minutes of previous meeting read and approved.

Dr. A. C. Bartholomew read a paper on "Ocular Injuries." General discussion.

Motion carried that bill for janitor services for month of March, amounting to $3.75, be allowed.

Banquet committee reported $110 collected and expenses $107. Motion carried that report be accepted and that the gratitude of the society be extended.

Motion carried that banquet committee make arrangements for a Dutch lunch and a talk by Dr. Berteling on his recent trip to the South.

Adjourned. R. C. Shanklin, Secretary.

Meeting of April 9

Society met in regular session with eighteen members present. Minutes of previous meeting read and approved.

Dr. Charles Hansel read a paper on "A Rational Classification of Infantile Diarrheas." General discussion.

Motion carried that bill of the Kline Electric Co. for installing the wiring for the lantern, amounting to $11.26, be allowed.

Motion carried that next regular meeting be held in the medical section of the public library.

Motion carried that entertainment committee prepare to give a lunch for Dr. Berteling's travelogue, on the basis of twenty plates at fifty cents per plate, and that any money left over be turned into the hands of the treasurer of the society.

Motion carried that society defer purchase of the lantern until after the summer vacation.

Adjourned. R. C. Shanklin, Secretary.

Meeting of April 16

Meeting held its regular session in medical section of public library. Minutes of previous meeting read and approved.

Dr. H. T. Montgomery read a paper on "Milk Sickness." General discussion.

Application for membership of Dr. Gammack referred to board of censors.

Letter from Dr. F. V. Martin, secretary of LaPorte County Medical Society, read, announcing their District Society meeting to be held May 10. No action.

Letter from Dr. S. P. Tracy read, in which he says that dues of the Society are too high and not fair to the country man. Discussion general. Motion carried that secretary write to Dr. Tracy and ask for suggestions as to the best way to remedy the situation, and second, to appoint a committee to investigate Dr. Tracy's charges. Committee, Drs. Charles Bosenbury, J. W. Hill and J. G. Bostwick.

A Dutch lunch was announced for Thursday at 8:30 p. m. Dr. Berteling will describe his recent trip through Jamaica, Cuba and Panama.

Present twenty.

Adjourned. R. C. Shanklin, Secretary.

Meeting of April 23

Society met in regular session with seventeen members present. Minutes of previous meeting read and approved.

Dr. R. B. Dugdale read a paper on "Injuries to the Birth-Canal." Discussion general.

Committee reported favorably on Dr. Gammack's application, and ballot resulted in unanimous election.

Motion carried that on account of graduating exercises of the Epworth Hospital nurses the next meeting be postponed to Thursday, May 2.

Committee appointed to investigate Dr. Tracy's charges that the society is charging the out-of-town member too much and treating him unfairly, reported that: Dr. Shanklin's letter to Dr. Tracy read, and Dr. Tracy's reply read. Committee found that the annual dues of $6.00 are divided as follows: $2.00 to State Association. $1.62 general society expenses, $0.74 expended on meetings, surplus $1.64. So that the South Bend man has $0.74 advantage over the out-of-town man. No equipment has been purchased from the society funds, and no banquets have been paid for out of the society funds. Committee recommend that the dues remain at $6.00 per annum.

Motion carried that report be accepted and that Dr. Tracy be notified to that effect.

Motion carried that another Dutch lunch be held before the summer vacation.

Motion carried that society continue to meet in the room in the Court House, but amended to the effect that society meet in City Library.

Adjourned. R. C. Shanklin, Secretary.

BOOK REVIEWS

Practical Pathology. A manual of Autopsy and Laboratory Technique. For Students and Physicians. By Alfred Scott Warthin, Ph.D., M.D., Professor of Pathology and Director of the Pathologic Laboratories of the University of Michigan, Ann Arbor. Second Edition, rewritten and enlarged. 310 pages and 55 figures. Geo. Wahr, Publisher, Ann Arbor, 1911. Cloth, price $3.00.

Numerous typographic errors in the first edition of this work furnished an incentive for an early revision, but the lapse of 10 years between editions has served the purpose of more than doubling the volume and of practically rewriting the whole book. The work should serve as a valuable auxiliary to the pathologist both in autopsy work and for ready reference as to more recent pathologic examinations. Original methods have precedence over modifications, although the latter when of value are mentioned. A digest such as Dr. Warthin's work must of necessity prove valuable for the practical pathologist in point of time saving.

Not much stress has been laid upon the antiformin method of isolation of the tubercle bacillus, nor does the author favor the routine use of the freezing microtome. The reason for the conservatism in the use of the latter method is based upon the fact that sections made from fresh tissue by the freezing method often show a considerable alteration of cell structure, and in consequence he makes the emphatic statement that in all cases in which the pathologic condition is not clearly evident in sections obtained by the rapid freezing and staining method no diagnosis should be given. He says that even when the patient is upon the table the tissue removed can be put in a 10 per cent. formalin solution for a few minutes and then frozen directly in gum without washing out the formalin. This conservatism is certainly commendable, and particularly when it does not preclude the usefulness of the freezing microtome as a diagnostic aid in the operation.

The original fault, namely profusion of typographical errors, has certainly been well remedied.

Infections of the Hand. A Guide to the Surgical Treatment of Acute and Chronic Suppurative Processes in the Fingers, Hand and Forearm. By Allen B. Kanavel, M.D., Assistant Professor of Surgery, Northwestern University Medical School, Chicago. Octavo, 447 pages, with 133 illustrations. Cloth, $3.75 net. Lea & Febiger, Philadelphia and New York, 1912.

The work of Dr. Kanavel as outlined in his volume should prove a classic upon the subject. Because of the universal use to which the hand is put and the many functions for which it is almost indispensable, it would seem that more study should have been given its infections long ere this. The subject is practical from start to finish, and Dr. Kanavel's work thereon has been written with so much care and precision that it remains the reference par excellence. His therapy is conservative and rational throughout, and a logical basis for treatment can be found in every instance.

We trust that the work will meet the demand which is its just merit.

Operative Obstetrics. Including the Surgery of the Newborn. By Edward P. Davis, M.D., Professor of Obstetrics, Jefferson Medical College, Philadelphia. Octavo volume of 483 pages, with 264 illustrations. Philadelphia and London: W. B. Saunders Company, 1911. Cloth, $5.50 net.

Few lines of surgery have been so grossly neglected as that of obstetric surgery, and the time is an appropriate one for the appearance of a more or less complete treatise upon the subject. Dr. Davis has made a commendable effort to present his matter in a concise form and has added bibliographies for the convenience of those wishing to consult the literature. Not the least charm of the work is the profusion of illustrations, while the paper and type are most excellent. So that on the whole, from the publishers' standpoint, the work should be considered a success in spite of an occasional typographical error such an elision which occurs on the lower part of page 121.

Obstetric surgery offers a field for an honest difference of opinion broader than many of the more fixed branches, hence it would be obviously unfair to take exception to certain views of an author who is presenting a subject from his own standpoint based upon a large clinical experience. Doubtless we all have some rather fixed notions in this branch of work, and no one individual can be considered an absolute authority. Many of the subjects treated could be interestingly dilated upon, but such fulness would necessitate a much larger volume and might lose in the purpose for which the author intended his work.

The obstetric profession should feel grateful to Dr. Davis for his effort.

Nervous and Mental Diseases. By Archibald Church, M.D., Professor of Nervous and Mental Diseases and Medical Jurisprudence in Northwestern University Medical School, Chicago, and Frederick Peterson, M.D., Professor of Psychiatry Columbia University. Seventh Edition, revised. Octavo volume of 932 pages, with 338 illustrations. Philadelphia and London: W. B. Saunders Company, 1911. Cloth, $5,00 net; Half Morocco, $6.50 net.

The seventh edition of this most excellent book has been revised and the advances made in the time intervening since the last edition included. The bearing of the newer diagnostic procedures such as the Wassermann test, the Noguchi butyric acid test and the various tuberculin tests, are discussed in their relation to nervous and mental diseases. The recent advances in therapeutics are also included.

In the discussion of the operative treatment of exophthalmic goiter, the results are based on the older European statistics and no reference is made to the late American results.

It is surprising that Dr. Peterson questions the existence of Mongolian idiocy as a distinct type. The physical characteristics of the condition are so striking and remind one so strongly of certain states due to glandular hypoactivity that the reviewer believes the subject worthy of more attention than that given it in one short paragraph.

For the general practitioner and as a text-book, this work is one of the best.

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THE INDIANA STATE TUBERCULOSIS HOSPITAL

O. V. SCHUMAN, M.D.
Secretary, Board of Trustees, Columbia City, Ind.

After prolonged efforts on the part of the state health authorities who had repeatedly shown the necessity of a state tuberculosis hospital, the legislature of 1905 passed a resolution authorizing the governor to appoint a committee to investigate as to the need of a tuberculosis hospital in the state of Indiana, and report their findings and conclusions to the next legislature. The governor appointed said committee and after a thorough investigation it made a report to the legislature of 1907 recommending that the state of Indiana needed a tuberculosis hospital and that $250,000 be appropriated for that purpose, but the legislature only appropriated $30,000 to purchase a site and authorized the governor to appoint a commission to locate and purchase a site.

This commission was composed of five members, and after a thorough investigation of similar institutions in other states and inspecting more than twenty sites offered in the state, one was purchased 3 miles east of Rockville in Parke County, consisting of 504 acres, at a cost of $24,000.

Part of the land consists of rich bottom land, while the rest is rolling high pasture land and woods.

The commission made a report to the governor and legislature of 1909 and asked for an appropriation of $300,000 for the purpose of erecting a hospital which would accommodate 260 patients. The legislature appropriated only $130,000.

The commission then proceeded to commence the erection of a hospital by erecting an administration building, a power-house to the rear of the administration building which furnishes steam heat, water and electric lights for the institution. Next to the power house is a steam laundry with all the modern equipment. On the sides of the administration building are two pavilions, one for men and one for women connected with the administration building by means of two covered corridors.

The ward buildings contain forty rooms each with bath-rooms, sun parlors, diet kitchens and nurses' rooms.

The upstairs and downstairs porches run the entire length of the building except where the sun parlors run through them in the middle. The rooms upstairs are equipped with the so-called Indiana convertible sleepers, a device used in no other state institution in this country. Each room is equipped with a bed, dresser and chairs.

A corridor at the rear of the rooms runs the entire length of the pavilion and connects with the glazed corridor to the administration building. The glazed corridors from the pavilions to the main buildings proved indispensable during the cold weather of this winter.

The administration building contains on the first floor business office, superintendent's office, examining-room, operating-room, *x*-ray-room, staff dining-room and Board of Trustees' room. The second and third floors furnish the quarters for the staff and employees. The laboratory, dark room and store-rooms are located in the basement.

In the rear of the administration building are the kitchen and patients' dining-room, and in the basement the ice plant and cold-storage rooms, bake-shop and the employees' dining-room.

The commission then made a final report to Governor Marshall and turned the hospital and site over to him.

The governor accepted it on the part of the state and issued his proclamation Oct. 31, 1910, and appointed Dr. Henry Moore of Indianapolis, Isaac R. Strouse of Rockville and Dr. O. V. Schuman of Columbia City as trustees to manage the institution.

The Board of Trustees qualified under the law and had their first meeting Dec. 1, 1910.

The legislature of 1911 made an appropriation for maintenance of the institution for two years and one-half at the rate of $9 per week for each patient, also made a specific appropriation to stock and equip the farm, build a roadway to the hospital and completely equip the wards, administration building, power-house and laundry. They also made an appropriation of $5,000 to erect tent-houses for fifty patients.

After the population of the hospital had reached 100 patients, the trustees after advertising in various newspapers, medical journals and periodicals, received more than thirty applications from eight different states for the position of superintendent. After due consideration and examination Dr. H. B. Leavitt of Worthington, Ind., was selected as superintendent and Dr. W. A. Gekler of the Winyah Sanitarium of Asheville, N. C., was selected as head physician of the hospital, which was opened for patients April 1, 1911, with one patient, a staff consisting of superintendent, head-physician and matron, and the following employees: two trained nurses, an electrician, engineer and fireman, laundryman and assistant, baker, head cook, second cook, two waitresses in dining-room, dish washer and two domestics, a farmer, dairyman, carpenter and teamster. The force has been added to from time to time as necessity demanded.

The operating- and treatment-room, which is at present being more fully equipped, serves for the minor surgery and dressings, nose and throat treatment, etc.

The examining-room which is the office of the head physician contains the chart records which are kept for all the patients.

The chart system at the hospital is really a composite of the best systems in use in the other public and private institutions of the country, and is second to none in the point of completeness and amount of information kept on file.

The *x*-ray room contains one of the latest and most powerful induction coils that are made and all the accessories that are necessary in an equipment of this sort. The *x*-ray examination is part of the routine examination of every patient in addition to a thorough physical examination from head to foot. The equipment of the laboratory, which has been sufficient for routine chemical and microscopic examinations, is being completed so that research work can also be carried on.

The treatment given the patients is the usual hygienic and dietetic treatment employed at all institutions of this character. Patients sleep out doors on the porches nights and rest there either in bed or on reclining chairs during the day. The diet consists of ordinary hospital fare in liberal quantities reinforced where necessary with milk and eggs. Tuberculin is used in suitable cases, that is, in afebrile cases with little or no throat involvement and a limited amount of lung involvement. The greatest conservatism is practiced in the use of tuberculin. It goes without saying that its use for diagnostic purposes is very rarely necessary, and by no means a routine measure. The production of artificial pneumothorax is employed. The more radical surgical operations, such as thoracoplasty, are, of course, out of the question. Patients who are able to take exercise are compelled to do a certain amount of light work as their condition permits. Gymnastics and breathing exercises are naturally never used. Patients are never discharged as cured until they are able to do at least half a day's work with no bad after-effects. In this way they do not go back to their homes without a certain preparation for taking up some means of making a livelihood. Not only that but the rest cure, which is so apt to breed the rest habit, does not result in such a

Some of the buildings, Indiana State Tuberculosis Hospital.

degree of laziness that the patients are unfit for any occupation.

Since the hospital has been opened thirty patients have been discharged as cured; that is, every sign of activity in the lungs on physical examination had disappeared and the general condition is equal to or better than that during usual health. This classification of cured cases is somewhat more exacting and less favorable for statistics than that of many other institutions, but is also much more reliable and trustworthy. The hospital has not been opened long enough to ascertain the percentage of relapses among these cured cases.

The number of those in whom the disease was arrested is about the same as that of those cured.

Out-door treatment.

Many of these arrested cases have, by taking care of themselves at home, resulted in cures. The term "arrested case" is applied to those who no longer present any of the symptoms of the disease and whose general condition is normal, but in whose chests there are still some slight signs of activity.

Very few patients who have remained in the institution more than a week or two have failed to show improvement as manifested in subsidence of symptoms and gains in weight and strength. As is to be expected, a number of patients have been admitted to the hospital who simply refused to stay any considerable length of time and, of course, showed no brilliant results. The average gain in weight among those who gain is over 10 pounds, while the average loss is about 3 pounds. In addition to the physical benefits the patients derive from their stay at the hospital each one of them gets a first-hand object-lesson in personal cleanliness and careful and proper disposal of sputum. They are by means of pamphlets and lectures given all the information possible concerning the disease so as to be of benefit to those about them on their return home in an educational way.

The law governing the institution as stated on page 206 of the Acts of 1907 requires that only incipient cases be admitted for treatment. Now, after thorough physical examination, it is often impossible to draw the line between incipient and moderately advanced cases. It has been the policy of the institution to accept all those in whom a cure or at least decided improvement has seemed to be possible regardless of the amount of lung involvement. Advanced cases in which the disease is limited to one side only can be treated by some means of artificial pneumothorax and if not cured at least decidedly improved. Cases showing bowel lesions, extensive laryngeal involvement or other tuberculous complications of a similar serious nature cannot be accepted. Cases of acute fulminating pulmonary tuberculosis commonly called galloping consumption and miliary tuberculosis are, of course, incurable and can also not be accepted.

Members of the medical profession who desire to become acquainted with the work of the institution by a visit to the hospital are always welcome and are shown anything and everything about the place in which they might be interested. It is the desire of the officials of the institution that it be of service to the profession of the state in every possible way.

A PLEA FOR BETTER ASEPSIS IN ABDOMINAL AND PELVIC SURGERY *

Ed. B. Ruschli, M.D.
La Fayette, Ind.

It is not the purpose of this paper to give original ideas or new ideas on this important topic, but rather to review those scientific principles which if applied in our everyday surgery would give us fewer of those detestable complications known as stitch abscesses, infected abdominal wounds involving deeper layers, and often an intra-abdominal infection of an absolutely clean case.

* Read before the Indiana State Medical Association, at Indianapolis, Sept. 29, 1911.

This paper may be burdensome to you gentlemen who are teaching this subject in medical colleges and hospitals each day, and to you men who have the opportunity to do surgery in the larger hospitals where the head operating nurse has been trained in one of the important surgical centers of the continent, but I believe it should not be burdensome to conscientious men who are doing surgery in smaller hospitals where as a rule the head nurse is of local talent and to rely on this local talent and expect results means that every detail of technic must be outlined by the surgeon.

Preparation of the surgical field: This is one of the most important and often one of the most neglected points in our aseptic endeavor, because in a great many instances this is left to the routine of the hospital, and the surgeon if required to state in detail how his patient was prepared would be unable to do so. I do not care to give any one individual's idea concerning preparation of the surgical field, but emphasize general practical principles.

The entire abdomen, from the edge of the ribs down to and over pubes and about the anus, should be freed from hair. The skin should then be scrubbed for from 5 to 15 minutes with soft gauze, green soap and water. Soft gauze does not cause irritation of the skin. The soap should be removed with sterile water, followed by alcohol and ether, and an antiseptic dressing applied for at least twelve hours, and better twenty-four hours, before operation. In large flabby abdomens, with rough skin, it is considered good judgment to apply soap poultices for from three to six hours to soften the skin, and thus allow the antiseptic from the pad to penetrate the deeper layers. A great many men might object to the idea of applying an antiseptic pad for twenty-four hours before operation, but none of us would think of opening an abdomen without rubber gloves, as we say we cannot thoroughly sterilize our hands, and as we have no method of completely covering the skin about the incision, the principle of giving our soap, water and antiseptic twenty-four hours to act seems logical.

Of course no abdomen should be opened without knowing that the vagina has been surgically cleansed and the lower bowel completely emptied of fecal matter, because especially in pelvic surgery one is never sure it will not be necessary to open into the vagina, or, by accident, tear a hole into the rectum, at which time a preparation of these canals may be an important factor in saving the patient's life, aside from aiding very materially in getting a clean result. In cases where the intestinal tract is to be invaded it is proper to feed as nearly sterile food as possible for several days previous to operation.

Care and preparation of operating-room: The room and furniture should be kept as nearly aseptic as possible and this can best be accomplished by not admitting pus cases, and should it be necessary to operate a pus case the most rigid methods of fumigation and antiseptic scrubbing should be carried out before a clean case is again admitted. All furniture, as bottle racks, solution stands and irrigating posts, should be covered either with sterile sheets or clean sheets that have been emersed in 1 : 20 carbolic solution. All basins that are to be used for sterile purposes should be boiled, and not, as is a common practice, sterilized by immersion in a strong antiseptic solution or wrapped in towels saturated with some such solution.

Three nurses are essential: One who is surgically clean from the beginning of the preparation of the operating-room until the final dressings have been applied on the patient. She should wear a clean dress or gown over which a sterile long-sleeved gown should be worn. Her hair should be entirely under cover with a head mask which also will cover nose and mouth. During the early period of preparation she should wear long sterile canton flannel mittens, either on bare hands or over rubber gloves, and after preparation is complete and before the operation begins both mittens and gloves should be removed and a new pair of sterile gloves worn. All furniture that might be used by surgeon or herself should be covered with sterile sheets or towels. Her stands for sterile goods should be so covered that there is no possibility of coming in contact with any part of the stand, and the sterile goods should be so covered that nothing can come in contact with them.

A common breach in technic is often seen in covering the portable instrument table with a sterile towel, thus allowing the metal on under surface to come in contact with sterile sheets over patient's thighs. This can be remedied by covering the tray and arm of stand with a long sterile pillowcase allowing no unsterile surface to be exposed.

The sterile goods should be under direct supervision of the head operating nurse from the time it is being folded into bundles until it is sterilized and ready for use. All goods that are to be used should be sterilized under pressure and double sterilized when practical. Goods that have been sterilized several days previous should be resterilized just before operation. All supplies should be wrapped in small bundles covered with sheeting, not done up in large sacks, as there

is always danger in removing these goods from sacks. The small bundles can be more thoroughly sterilized and can be handled with greater safety when unwrapped. Each surgeon's gown should be done up separately, but if done up in a bundle should be in the hands of the sterile nurse until it is to be buttoned and not be handed to the surgeon by a non-sterile nurse.

The second nurse should wear a clean uniform over which she has a sterile gown, her hair should be entirely covered and her hands and arms carefully scrubbed before attempting her duties. Her duties are to look after the wants of the sterile nurse, as sterile supplies, sterile solutions, attend to the sterilization of instruments and gloves, and assist the surgeon in applying his gown and mask.

In unfolding sterile bundles she should use every precaution that the wrapping after once removed from goods does not accidentally come in contact with any sterile surface, and should perchance it fall against some unsterile object the same should immediately be removed as unsterile.

In preparing instruments they should be free from all rust or blood and boiled completely immersed in water containing a small amount of sodium bicarbonate, or, as lately suggested, sodium hydrate, for at least fifteen minutes, after which they should be delivered to the head nurse on the tray that is contained in all good sterilizers. Knives become dull by boiling and are better sterilized by placing them in alcohol or a strong carbolic solution for an hour previous to use. If an instrument is dropped during an operation there should be no haste in sterilizing same. It should be washed and allowed to boil at least fifteen minutes and returned to the head nurse on the sterile tray, and not, as is often seen, picked up, placed in the sterilizer for two or three minutes, then lifted from boiler with forceps that have been immersed in alcohol and handed to surgeon with the idea that it is sterile.

In sterilizing the gloves, each glove should be carefully tested for holes, after which a small piece of gauze should be passed into the glove and the pair should be so wrapped, that the rubber surfaces do not come in contact with each other, thus preventing them from becoming adhered. They should be boiled in plain water for at least twenty minutes, after which they should be removed on the sterile tray to the head nurse and she can place them in sterile water. There should always be an extra pair of gloves for the surgeon and his assistant.

When the patient arrives the second nurse should prepare the field for scrubbing, but if the surgeon so desires she can, during the time the patient is being anesthetized, scrub her hands, put on sterile rubber gloves, and do the final cleansing to the field of operation, being assisted by the third nurse.

The third nurse should wear a clean uniform, a sterile gown, have hair under cover and her hands and arms well scrubbed. Her duties are to supply the second nurse's wants, attend to changing sterile water in hand basins, remove all soiled materials, assist the anesthetist, and should be the only nurse that can leave the operating-room.

The patient, where possible, should be placed under the anesthetic before entering the operating-room. The clothing should consist of a long clean operating shirt and sterile leggings, and the dressing over the field of operation. All bed clothing other than a clean sheet should be removed in the ether room. After patient is placed on the table the hands can be either fastened along sides or folded over chest and a small sterile blanket laid over the chest and another over the legs.

The field of operation should be freed of its dressing by the third nurse, if the second nurse is to make the final preparation. After the dressing is removed, sterile towels wet with an antiseptic solution should be placed above and below the area to be cleansed. The solutions should be sterile, in sterile vessels, on a sterile tray and sterilized gauze should be used to scrub the patient.

The abdomen should be washed with green soap and water for three to five minutes, rinsed with sterile water, alcohol and ether, and as a final preparation some antiseptic may be applied to skin. Following this the patient is draped by the head nurse, the draping consisting of covering the entire patient with a large sterile sheet, which sheet has a small opening a little above center, through which to work. Over this, four towels should be placed so pinned together that an opening is left to correspond to the opening in the sheet. The patient's head can be separated from the surgical field by an ordinary anesthetic rack, thus limiting the danger from forcible breathing or vomiting, causing infection.

Preparation of surgeon: The greater part of this can be done while the patient is being anesthetized and prepared. All clothing should be removed, followed by shower bath, after which he should put on a sterile white suit without sleeves and wear canvas shoes. His hair, nose and mouth should be covered with a head mask. His hand and arms well above elbows should be scrubbed with sterile brush, green soap and run-

ning water for from five to eight minutes, after which his nails can be cleansed with sterile orange stick and fingers again scrubbed for three to five minutes, then rinsed in sterile water and immersed in some antiseptic solution for two or three minutes followed by free covering with alcohol. He should then put on a pair of sterile canton flannel mittens to protect hands while putting on his sterile gown.

The gown should be handed him by the sterile nurse and be fastened in place by the second nurse. All gowns should have long sleeves, as it limits the danger of contamination which is evident when attempting to apply sleevelets. After the gown is fastened, and just before beginning operation, the canton flannel mittens can be removed and the sterile gloves applied. The surgeon should not leave the operating-room after he has donned his sterile clothing. This same preparation will apply to all assisting surgeons.

Technic of handling catgut: It is very seldom safe to use gut other than that prepared and placed in sealed tubes by some standard house, for the reason that very few hospitals that attempt to sterilize their own gut have laboratories to prove its sterilization, and, again, it is almost impossible to remove the gut from ordinary jars without extreme danger of infecting the entire contents. In handling tube gut, the head nurse should have the tubes washed with soap and water and placed in an antiseptic solution such as strong carbolic acid or alcohol for at least one hour previous to their use. When the gut is to be used the tube should be broken in a sterile towel, stretched and cut into proper lengths and laid between the folds of a sterile towel and not, as is common practice, be laid on some exposed surface where every attempt to get a ligature or suture means a handling of the entire strand. The gut should be handled by no one other than the head nurse and the surgeon. When handing the surgeon catgut, if a ligature, the nurse should grasp it by either end and allow surgeon to grasp it in center; but if a suture, the catgut should be held in an untangled bunch in the palm of the hand and the needle handed to surgeon when he can dispose of the gut to his best advantage, all of which saves time and limits the danger of infection.

During the operation all sterile pads, whether dry or moist, should be handed directly from the sterile table to surgeon and not be laid exposed on the instrument tray. It should be placed in ball or bunch form in the nurse's hand, and not handed waving in the air or being dragged across sterile field. The temperature of the moistened pad should be governed by a thermometer, so they will not be handed to the surgeon so hot that he might be induced to wave it unthoughtfully in the air. If large quantities of fluids are to be poured into the abdomen it should be done by the head nurse and not by the second nurse, as the surface of the pitcher with which she transports water from the sterilizer to head nurse is probably not kept sterile.

It is the assistant's duty at all times to be sure that the skin about the incision is well covered so there is no possibility of the surgeon getting his hands in a non-sterile field, and where the operation is prolonged it is a good practice to cover the edges of the incision with sterile gauze which prevents exposure and limits trauma to this area.

After the operation is completed, and just before suturing the skin, the towels about the wound should be changed, the wound carefully covered with a piece of gauze and the skin freed of all blood and discharges from wound. The surgeon's and assistant's gloves should be washed free from blood and dried with sterile gauze.

In suturing the wound in the skin it is well to use a suture with a needle on either end, passing the needles from the inside to the surface, thus preventing the possibility of carrying the skin bacteria into the wound. Before tying these sutures all bleeding should be stopped and any free blood should be removed. After the final sutures are tied the wound should be covered with a piece of gauze, the sheets and towels removed and the skin surface wiped clean. The dressing for the wound should consist of several thicknesses of folded gauze over which a sterile combined dressing is placed, and this securely fastened with a solid layer of adhesive plaster sufficiently large to cover entire field, outside of which a sterile binder can be worn.

It is not uncommon to find from three to five doctors present, all supposed to be surgically clean, and as infection seems to be a question of dosage of fertilization this is very bad principle as it requires extreme presence of mind for a man to remain surgically clean unless intimately associated with or assisting in the operation.

After-care of wound: With all indications that the wound is clean it can be dressed any time after the seventh day. The surgeon should prepare practically as carefully for this as for the operation. He should scrub his hands and arms, wear a sterile gown and good sterile rubber gloves. The nurse should be one who is not required to handle pus cases. Her hands and arms should be carefully washed and she should wear a sterile gown. The dressings should con-

sist of a sheet, about 3 x 3½ feet, with an opening near the center through which to work, a package of gauze wipes, a package of gauze pads and a combined dressing. These should be done up in separate bundles and sterilized. It is extremely dangerous to keep the dressings in sterilized jars in large quantities, though a common practice in a great many institutions. The vessels, solutions, instruments and tray should be sterilized by boiling. The patient is usually dressed in bed. The bed clothes are laid well down over pubes, the binder, adhesive and combined dressing down to gauze pads removed by the nurse. The gauze pad is removed by the surgeon with a pair of sterile forceps, after which the small sheet with opening near center is spread over patient to prevent any possibility of coming in contact with anything but the sterile field. If so desired the stitches can be removed, and if the wound is clean and there is no secretion, it is best not to sponge but reapply a new sterile pad, combined dressing, and strap the dressing firmly in place with adhesive plaster. Without further indication of trouble this should be the only dressing until the patient is allowed up and around. If perchance the wound is infected, the same degree of cleanliness should be followed, which will often prevent the infection spreading to any extent.

The importance of these extreme degrees of cleanliness in my opinion cannot be overestimated, when one stops to consider his obligation to his patient, because as we all know very few patients who enter into a surgical agreement have any idea of what it means, and their choice of a surgeon is often governed either by the reputation a man has acquired by years, or by the reputation he has gained by his fearlessness and radicalism, and in neither case is a single thought given to his aseptic technic — fortunately for the surgeon. Even physicians at times measure a surgeon's ability by his rapidity and fearlessness, but if his cases are followed we will often find that the postoperative complications and sequelæ are as serious as the original pathologic condition.

What does an infected wound mean to a patient? Immediately it means that the wound must be dressed daily, which is usually very painful and becomes disagreeable. Second, that this suppurative inflammation is a drain on the system which prolongs convalescence to the extent that instead of being confined to bed three weeks it may be six weeks to three months. At times instead of the suppurative inflammation subsiding it extends, involving more important organs, which might result in the death of the patient. The remote results are that we have a large ghastly scar which is often tender and painful, but most important is a postoperative hernia due to poor union of the fascial layers.

When the young physician who has had a fair medical education and a good general hospital training stands by and sees these complications and sequelæ occurring each day, he often wonders who should be recognized as a surgeon, the man who does daring, fearless, rapid work without much knowledge or regard for asepsis, or the man who is more conservatively timid, but surgically clean to the degree that his end-results are that the patient is well and not debilitated and weakened with a ventral hernia which requires the danger of a secondary operation.

DISCUSSION

Dr. J. R. Eastman, Indianapolis: This is a very excellent paper, and I think one can safely subscribe to all the doctor has said. At the risk of being misunderstood I will say that I think it is well in our enthusiasm for asepsis not to lose sight of the importance of ordinary housekeeper's cleanliness. If we become overenthusiastic as to germicides or antiseptics in rendering our hands, operation field, etc., aseptic, we are likely to overlook some of the ordinary everyday principles of cleanliness, which to my mind are most essential. I have always striven to live up to the teachings of Von Bergmann, but I confess, not without some fear as to being misunderstood, that I am beginning to drift away from the terribly rigid devotion to chemical and thermal methods of securing asepsis, and am becoming more deeply convinced of the importance of housekeeper's cleanliness. We prepare our hands by the most elaborate methods and then put on rubber gloves. This does not sterilize the perspiration and the deeper glands of the skin. I see some of the men who are so rigid in chemical and thermal asepsis operating with gloves half torn off the hands. I admire the presentation of the doctor because I think it is strictly in accord with the teachings and experience of practical men in the great medical centers everywhere. I do not want to be captious, but submit that in our hospitals such as we have here in Indianapolis our nurses prepare catgut that is just as valuable as the catgut we get from the catgut purveyors. I have not any other reason for making that statement than this: that I get fewer infected wounds from our own catgut than I do from catgut of the well-known makers.

Dr. A. P. Roope, Columbus: The subject is certainly an important one, as is any subject which has to do with better results in surgery. The stitch abscess is a rare thing with me since I have been making most of my preparation on the operating-table. One thing I like to feel, and that is that my patient is getting as much

rest as possible the night before an operation. I think that after a light supper they should be let alone, with the assurance that someone is at hand if needed. After the repeated enemas, the low enema, and that therapeutic delusion, the high enema, they are weakened and nervous and apprehensive.

In the operating-room I prefer one nurse, if she is efficient. If she is doubtful, one is certainly safer than three of the same kind. Another nurse may be there; she is seldom used. As to the surgeon himself, it is hard for him to keep clean once he is ready for the operation, and he should have several changes of gowns. I believe in better asepsis, but I believe that this is best done and maintained throughout the operation by simple and not intricate methods.

HEREDITARY GOITER MANIFESTED IN FIVE CONSECUTIVE GENERATIONS — CASE REPORT

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Mrs. Y, aged 26, gave birth to her fifth child, a female; weight 10½ pounds, plump, well-nourished and normal in all respects except for a large tumor on each side of the neck, in the anterior half, and difficult and noisy respiration. Each tumor was as large as the lateral half of a large hen's egg and there was no apparent connection between the two. The difficult respiration rapidly improved and disappeared in five days but the tumors remained unchanged. Investigation revealed the fact that each of the previous children had had exactly the same condition at birth. In two of them, male, aged 6, and female, aged 4, the tumor had disappeared in infancy and one, female, aged 7, tumor remained and has grown larger in proportion with the child's growth. One child, male, was born with tumor much larger than any of the others and respiration proportionately difficult, and died in ten days after birth.

Father and mother are both goiterous. Father's was congenital, same as his children. Mother's appeared with first conception. Her sister also has a goiter that appeared after puberty and has several children, none of whom as yet has shown any sign of goiter. Father's mother has a congenital goiter as did her mother and grandmother. In none of them were there any symptoms of a nature to be attributed to goiter. All apparently simple and in each case the person was born with the thyroid enlarged. Father has one sister living and she is goiterous, but none of her children shows any thyroid trouble. History of family back of Mr. Y's mother cannot be obtained with any accuracy in regard to any members other than the maternal grandparents. All have been long-lived. The grandmother is past 80 years and in good health at present.

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SOCIOLOGIC ASPECTS OF SYPHILIS *

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The tendency of some writers on the subject of syphilis is too much toward optimism. They are inclined overmuch to underestimate the evils resulting from the disease. No less an authority than Dr. Jonathan Hutchinson, in 1899, wrote that "the statement that syphilis is likely to become a cause of degeneracy of the race is one from which I most utterly dissent. The disease is probably much less common than in the sixteenth century and is gradually becoming less so, and the extent to which its hereditary transmission influences the well-being of the race is exceedingly small." [1]

If we were to rely on the information obtained from statistics made from returns to the health officers, we might accept this statement as true; for syphilis is seldom given as a cause of death to the health department. But still a medical examiner-in-chief of a large life insurance company asserts that "nothing could be farther from the truth, for syphilis is not only the most widely disseminated of all the infectious diseases, among all classes and conditions of people, but it is the most formidable, the most terrible, and most deadly of all the infectious diseases." [2]

Biddle says: "Yet the records of the insane hospitals show that, proportionately, the number of paretics is on the increase. With such records before them, medical superintendents of hospitals view with awe our optimism" on the subject of syphilis.[3]

The late Dr. Hyde stated that it was probable that 18 per cent. of the population of this country were syphilized.

If the evils resulting from syphilis were limited to those who acquire the disease, because they have voluntarily exposed themselves, society

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* Read before the Indianapolis Medical Society, Oct. 23, 1911.

1. Hutchinson, Jonathan: Twentieth Century Practice, xviii, 373.

2. Ravold, Amond: Medical Papers and Discussions of American Life Insurance Association, Des Moines, Iowa, 1910.

3. Biddle, Andrew P.: Syphilis in Its Relation to General Paralysis of the Insane, Tr. Am. Dermat. Assn., 1908, xxxii, 194.

might not be so much concerned; but unfortunately suffering is inflicted on the innocent because the results of the disease will be shown by the progeny for several generations.

Paul Lewis Gaston[4] makes a distinction between hereditary syphilis and syphilitic heredity. Both conditions are often fatal to the descendants, but they act in different ways. Hereditary syphilis produces syphilitic lesions that kill the infant or prevent its birth alive. Syphilitic heredity is like any bad heredity and results in degeneracy or dystrophies such as occur in tuberculosis or other diseases of the parents." "Dr. Landouzy[5] believed that there were two forms of heredo-tuberculosis: first, by direct transmission of the bacilli from the parent to the child; second, by a tubercular tendency or weakened resistance to the tubercular bacilli. In precisely the same way, he taught, are the stigmata of growth and development produced by heredo-syphilis. The syphilitic diathesis tends," he says, "to produce a class of persons known as degenerates."

There has been much controversy on the subject of hereditary syphilis. The older authorities assert that if a child of syphilitic parents passes puberty without being overwhelmed by bad heredity it will probably live out its expectancy without suffering from the syphilitic taint. More accurate methods of diagnosis have, however, proved the error of this assertion. The microscope, the Wassermann reaction, Leude's modification of Czapska's corneal microscope, and the Schumm-Apelt test of the cerebrospinal fluid have shown that many conditions that were considered due to other causes were the results of syphilis.

The subject of the transmission of heredo-syphilis to the third generation has not entirely passed the stage of controversy. "The question is, will the descendants be affected by the heredo-syphilitic influence? First of all, it is certain that in many cases there is no possibility of progeny, owing to sterility caused by dystrophies of the testicles, ovaries, uterus and genital organs. When the heredo-syphilitic does procreate, what is the nature of the descendants?" Professor Fournier[6] says: "It is most common for them to be normal and free from hereditary taint. It is proved though that syphilis of the grandfather may manifest itself in the grandchildren by some dystrophic stigma, so that there certainly exists a dystrophic heredity of the third generation." He states that Barthelemy "has investigated this question for many years, and has often seen syphilitic heredity in the third generation manifest itself by the most varied dystrophies, but always resembling those which characterize the syphilitic heredity of the second generation. It must, therefore," he says, "be accepted as a fact of undeniable authenticity that heredo-syphilis may have the same harmful effect on the fetus as the acquired form."

The results of heredo-syphilis are: first, what Professor Fournier terms "fragility of life." He says that "at any age heredo-syphilis may be manifested by what I have called fragility of life — that is to say, by a quotient of vitality inferior to normal, and by less resistance to disease. Heredo-syphilitics are often carried off by diseases which are not usually fatal. They often die at an early age, of nothing at all, so to speak, without any definite disease, and in many cases the most careful autopsy does not reveal the cause of death. At a more advanced age it is not uncommon for ailments of heredo-syphilitics to assume a particularly serious or even malignant form, and the reason for this gravity can only be attributed to native debility of these subjects — that is, to their hereditary taint."

A second result of syphilis is what Ravold[2] terms "the short life history." "Next to the skin, the arteries are the part which most frequently suffers as a result of syphilitic infection. The influences of the toxins generated by the spirochetes is seen in the thickening of the middle coat of the vessel, which impairs its elasticity and interferes with the blood-supply of the arterial wall, and thus leads to degenerative changes. The fact is established that the victim of acquired syphilis can transmit the tendency of fibrous degeneration to his progeny." This is a factor in causing the "short life history." This "short life history" has attracted the more attention because these "tender families" frequently have their origin in members of long-lived families. The toxins of syphilis circulating in the blood of the parents, at the time of conception, so influence the development that the tendencies to degeneration of the parents are duplicated in the progeny.

The relation of heredo-syphilis to tubercular infection is so marked as to attract the attention of careful investigators. Dr. Edmond Fournier gives some carefully worked-out reports on this subject.[5] He quotes Dr. Lebert as saying that "heredo-syphilis plays the same part in producing tuberculosis as does a predisposition to tuberculosis. There is no doubt that in a number of instances tuberculosis is brought about by an hereditary taint of syphilis, for if there is energetic syphilitic treatment the symptoms of tuber-

4. Am. Jour. Obst., 1906, liv, 448; abstr. in Ann. de méd. et chir. inf., June, 1906.

5. Fournier, Edmond: Researches and Diagnosis of Late Heredo-Syphilis, p. 295.

6. Fournier, Edmond: Treatment and Prophylaxis of Syphilis.

culosis cease to exist, and tuberculosis of the lungs and lymph-glands is cured." Fournier does not convey the impression that syphilis produces tuberculosis: on the contrary, he says: "Syphilis does not produce tuberculosis but prepares the soil for the germination of the tubercle bacillus." Syphilis produces the point of election for tuberculosis infection; and this predisposition is not limited to the individual but is transmitted to descendants. Another thing which he emphasizes is that it is "noticeable that there is a particularly large number of children suffering from diseases of the hip, who are heredo-syphilitics." "It is remarkable," he says, "that a family who are frequently attacked with pulmonary tuberculosis show an infrequent number of cases of tuberculosis of the hip, while children born of syphilitic parents, without family history of tuberculosis, show an unusually large number of cases of tuberculosis of the hip."

As the result of his investigations to determine the possibility of syphilitic heredity being a factor in the causation of the scaphoid scapula, Dr. Graves was led to form new conclusions as to the damage done by syphilis. He states that "blighted is the one characteristic of syphilitic progeny." "The 'little old man' type so frequently seen among syphilitic progeny shows why the words blight and blighted are preferable to taint and tainted to characterize the progeny of syphilitic parentage. In their later development, children of syphilitic parentage show the blight in many ways which it is not necessary to particularize; but only to add that those cases which we classify as congenital and hereditary show early vasculo-sclerotic changes, blighted physical and mental growth — at times one, at times the other, and frequently both — resulting in retrograde types, when compared with their immediate relatives and ancestors and the average members of the community. I freely admit," he says, "that these statements are wholly at variance with my own former views; but I have lived long enough to see some of the end-effects of syphilis in the children of syphilitic parentage. The progeny were of those where I personally observed the course of the disease in the father, had treated him energetically and finally, after three, four or five years, consented to his marriage. In attempting to trace the ramifications of the scaphoid scapula, I have studied the wives and progeny of these fathers I have cured (?) and in no instance have I found a child equal to his forebears or failed to find some evidence of blight in the mother." [7]

7. Graves, William: Scaphoid Scapula, Med. Rec., May 21, 1910.

Graves is at variance with the usual teaching on the subject when he says: [8] "With the beginning of mental development, such progeny are either backward and remain so, or they show, and this is the rule, precocity. Strenuosity and intensity characterize many of these individuals and before or after adolescence such mental proclivities, associated with an inherently weak constitution, may sooner or later lead to a 'break,' and they make a large percentage of the cases commonly classified as neurasthenia, hysteria, and dementia præcox. Many cases of epilepsy, chorea minor and tic are found among individuals of the second and later generations, but especially in the second, and I have been greatly impressed by the unusual frequency of tuberculosis in these generations."

Edmond Fournier,[5] referring to the mental and moral results of heredo-syphilis, says that "their clinical manifestations are very diverse, consisting of modifications of character, bizarre conduct, emotionalism, increased impressionability, irascibility, and eccentricities of conduct and character. These unusual changes of character occur very frequently in children of syphilitic parents, and are true syphilitic-heredity stigmata."

"The development of intelligence and of moral nature," he says, "are markedly affected by syphilitic taint, consisting of arrested mental development, infantile mentality, even imbecility and idiocy. The mental effects consist of two manifestations, retarded mental development and imperfect or arrested development. Children whose mental development is retarded by a syphilitic taint show some intellectual ability which is, however, of smaller degree than other children of their age. They learn to read and write with great difficulty, many of them never accomplishing either. There are many degrees of arrested development, ranging from those who are unable to learn or care for themselves to absolute idiocy and imbecility."

"Along with this mental development there is an arrested or feeble moral character. Very often this immorality is manifested in individuals in whom the mentality is normal, but whose brothers and sisters show various stigmata of heredo-syphilis. In others there seems to be a real psychomoral degeneracy, which has a very significant legal phase. It is very common to observe the stigmata of hereditary syphilis in degenerate criminals."

Dr. Weis[9] says: "There are some other instances yet in which inherited syphilis, or its non-syphilitic sequences, play a paramount rôle, as in

8. Graves, William: Scaphoid Scapula Syndrome, Interstate Med. Jour., January, 1911.

9. Tr. Am. Soc. Sanitary and Moral Prophylaxis, 1908, ii, 8.

impaired moral responsibility, in case of actions which we are wont to look on as degenerate, and where the adjustment of criminal acts is concerned. I have no doubt," he says, "that stunted brain-cells, or growths in the brain due to syphilis, with their altered anatomic and consequently psychic derangement, are the causes of many cases of moral and criminal insanity."

Dugdale, in his studies of the "Jukes," says: "We can appreciate the influence of syphilis in inducing degeneracy, when we analyze the lines along which the disease runs, and note its devastation of individual careers and its pauperizing influence on successive generations. If it were merely the record of so many human beings who have died, it would lose most of its significance; but in view that this is the record of so many who have lived maimed lives, maimed in numberless ways; entailing maimed lives full of weakness, which is wretchedness; sapping the vitality of the innocent ones to the third and fourth generation in a constantly broadening stream, and breeding complex social disorders, growing out of these physiologic degenerations, the question changes into larger and more momentous proportions the more minutely we study it."

Speaking of pauperism and syphilis, the same writer says: "It is a case of absolute hereditary pauperism, the entailment depending on the disease in one generation producing cerebral atrophy in the next. Pauperism here stands as the social equivalent of disease, which is a form of weakness."

Ravogli[10] says: "The vagrant class is usually recruited from the unemployed, they have no ambition to work, are usually suffering from the ravages of venereal diseases, or from chronic ailments which are the results of syphilis. They form a class of indigent infirm. They cannot, nor do they want to find employment; they are usually dependent and are not capable of being restored to usefulness and independence. Their life passes from the saloon to the slums, from the slums to the workhouse, from the workhouse to the hospital, then finally to the city infirmary. This miserable condition is entirely due to vice, which has made them its victims, either by accident or by evil home environment."

Dr. Jones of Toronto has given much attention to the study of heredo-syphilis as a cause of degeneracy. As a result he asserts[11] that "another condition in which primary toxic degeneracy plays an important part is a certain type of idiocy." He states that "recent investigations by Plaut, Dean and others have shown that the Wassermann reaction is present in the blood in more cases of ordinary idiocy than might previously have been suspected. It is not yet definitely known what proportion of cases of ordinary idiocy is due to congenital syphilis, but it is certainly a large one, possibly amounting to 20 per cent. The Wassermann reaction may be found even when no other signs of congenital syphilis are present, just as it may in adult cases of parasyphilis."

This statement of Dr. Jones excited both skepticism and curiosity. So in order to test its accuracy there was begun last spring at the Indiana School for Feeble-Minded Youth, at Fort Wayne, with the consent and cooperation of the superintendent, Mr. A. E. Carroll, an investigation to determine what part syphilis had in filling this great institution. As it would consume too much time and involve a large expense to test each of the 1,200 pupils, it was decided to select such rooms as the inmates would represent an average of the pupils of the institution. Four rooms occupied by male pupils met these conditions.

There were 130 boys in these rooms, ranging in age from 7 to 18 years. Special cards were prepared, and the best histories available secured, and the results of the physical examination noted on the card.

Blood specimens were taken from every pupil, in the four rooms selected for study, but because the weather was very warm at the time the blood was received, and amboceptor could not be had in sufficient quantities when it was needed, most of the specimens were spoiled. When an attempt was made to secure fresh specimens, some of the pupils were on vacation and others had been taken from the school. Tests were made, by Dr. Harry K. Langdon, of the blood of eighty-six pupils. The result was fourteen positive, ten weak positive, eight faint positive and fifty-four negative reactions. This indicates that thirty-two of the pupils tested, or to put it differently, 37 per cent. are suffering as a result of syphilis.

A careful analysis of the data furnished by the cards shows that a negative Wassermann does not exclude the probability in all of these cases of a syphilitic taint. The cards of three cases show congenital idiocy, senile face, Hutchinson teeth. Another card shows congenital idiocy, Hutchinson teeth, keratitis, deafness without otorrhea. Three cards congenital idiocy and Hutchinson teeth. One of these cases was illegitimate and his mother was a prostitute; a second had two brothers die young from "scrofula" and one feeble-minded sister. Another case was a congenital idiot with Hutchinson teeth

10. Ravogli, A.: Syphilis as a Cause of Pauperism, Interstate Med. Jour., January, 1911.

11. Jones, Ernest: Syphilis of the Nervous System, Interstate Med. Jour., January, 1911.

and keratitis. One case congenital idiot with Hutchinson teeth, whose two brothers died in infancy, his father was an alcoholic, whose parents died young. In this way fourteen cases of those giving a negative Wassermann were found that gave unquestionable clinical evidence of a syphilitic blight. Because of this fact and their histories there is reason for deciding that these pupils are suffering from syphilitic heredity (Landouzy).

If these fourteen cases that give a negative Wassermann, but are cases of syphilitic heredity, be added to those that gave a positive reaction and the per cent. found, it indicates that 53 per cent. of the inmates tested are the victims of syphilis.

Since feeble-mindedness can be transmitted we are not warranted in assuming that all of these boys who give unquestionable evidence of heredo-syphilis and syphilitic heredity, are idiots or imbeciles because of their syphilitic taint. The imperfect histories of many of these boys make it possible only to approximate the number whose parents were feeble-minded; hence if we deduct from the number that give evidence of a syphilitic taint those whose histories indicate a feeble-minded heredity and do not question the cause of feeble-mindedness of their parents, this would give with reasonable accuracy the number that are imbeciles or idiots because of their syphilitic blight. If we deduct from the forty-six cases that gave evidence of heredo-syphilis or syphilitic heredity, the eight cases whose parents were feeble-minded the remaining thirty-eight may fairly be rated as imbeciles or idiots because of their syphilitic taint. This indicates that the condition of 44 per cent. of the cases tested can be ascribed to syphilis. If the boys studied are accepted as an average of the inmates of the school, then there are 528 poor unfortunates in this institution because of syphilis of their forebears.

From what has been said some conception can be formed as to the wretchedness and suffering caused by syphilis. While the superficial evidences of the disease may not be so well marked, still it has been shown by the reports submitted that the disorders of the nervous system caused by syphilis are increasing.[3] It goes without the saying that more effective measures must be adopted for bringing this disease under control. How can this be accomplished?

First of all publicity is the prime requisite. The public must be enlightened as to the dangers and the extent of the damage from syphilis. Only by this means can public opinion be so aroused as to sanction and sustain measures necessary for effective control.

Second, efforts must be directed to the work of educating the rising generation in the laws of the hygiene of sex; to substituting sound and wholesome knowledge for the sex instruction that the majority of young people pick up from ignorant and often vicious sources, and thus endeavor to raise the standard of morality and inculcate a high respect for women.

Third, in factories and other establishments where boys and girls are employed, better supervison shall be established and rules of strict respect for each other must be enforced.

Fourth, we must seek out, and as far as possible control, the sources of infection. This cannot be accomplished by the methods of reglementation now in force in most of the cities of Europe and in many cities of this country. The cause for the failure of all systems of regulation was that they did not take cognizance of all the factors by which the disease was spread. The fatal defect in every effort to prevent syphilitic infection has been that the masculine spreader of the disease has been entirely ignored; woman has been regarded as the chief offender and all efforts to stamp out the disease have been directed against woman alone. The question seems never to have been raised as to how the women may have been infected. The fact of the matter is that man is the chief factor in the spread of venereal diseases. To man almost wholely is due the social consequences and danger of this disease. No effort to control the sources of infection can be successful that does not take cognizance of this fact. You may gainsay it as you will, but the fact remains that no means for controlling the spread of syphilis can be successful that does not include it in the list of infectious diseases that are required to be reported to the board of health. To this end a law should be enacted. There should be incorporated in such a law a provision making it a penal offense to, knowingly, infect an innocent person with this disease.

As a matter of fact even the introduction of such a law would arouse a storm of opposition. The opposition, though, to making it obligatory to report syphilis could be no more bitter than it was to the law making tuberculosis reportable. The experience from reporting tuberculosis has demonstrated the great advantage of knowing where the sources of infection are located.

The most forceful objection urged against making syphilis reportable is that it would expose and bring humiliation on those who had been innocently infected. To meet this legitimate objection and to weaken the force of the protest of

those who had acquired the disease honestly, Dr. Prince A. Morrow suggests that the physician be required to report only the fact that he was treating a case of syphilis and give the source of infection. If this plan were adopted, there need be no fear of exposure so long as the patient refrained from spreading the infection.

Ample room in lock hospitals should be provided, where infected prostitutes and those who had been convicted of infecting innocent persons, could be confined until they ceased to be a menace to public health. For the large number of young men and women who are annually infected and cannot afford proper treatment, wards should be established in our hospitals, where they could remain until they were bacteriologically clean.

Many reasons can as a matter of course be given why these suggestions are impractical and Utopian, but to stop the ravages of this awful disease we must depend not so much on making men over and giving the proper trend to their impulses as on intelligently and vigorously seeking and controlling the sources of infection.

In conclusion, it is my desire to give full credit to those who have contributed time and thought to assist in working out this paper. I feel under special obligations to Drs. Beall and Taylor of the Fort Wayne School. Dr. Taylor gave much time in securing histories and made most of the physical examinations. As has already been stated, Dr. Langdon shares in the investigations from having made all of the Wassermann tests. Dr. W. Shimer was especially helpful in assisting to collect material and in making translations from French.

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SACRO-ILIAC DISEASE *

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A printed study of eighty-four cases of sacro-iliac disease, by R. O. Meisenbach of Buffalo, in the May number of the *Journal of Surgery, Gynecology and Obstetrics,* was the incentive to the overhauling of my own cases of seemingly incurable backache, distributed over a period of several years. I had observed the increasing helplessness of the pregnant woman as she neared the day of her delivery, the dreadful pain in the back complained of that she said was worse than the parturient pain, the unusual tardy convalescence of these cases, and sometimes one that was left with a permanently lame back.

Since Goldthwait first called attention to the sacro-iliac joint and the pathologic conditions invading it, Dr. Albee has shown by the injection of methylene-blue into the sacro-iliac joints of cadavers, that it is a true joint with hyaline articular cartilage, synovial membrane capsule and supporting ligaments. Anatomists have disputed the constancy of the synovial membrane, but Morris, who disputes it, says "it is more apt to be present in females than males." Dr. Albee has proven it a true joint and bathed in synovial fluid. Edgar says, in five symphyseotomies he obtained 2 to 2½ inches separation at the pubes without any apparent injury of the sacro-iliac joint, proving the mobility of the joint as well as the great elasticity of its anterior ligaments. Mathews Duncan taught that the movements taking place in the sacro-iliac joint during labor are important to its progress.

Goldthwait says the pelvic articulations are true joints and that in normal health, entirely irrespective of age or sex, motion is a definite part of their function. The mobility of this joint has been sadly overlooked by the medical profession, and pains in the lumbar sacral region are attributed to rheumatism, kidney disease, pelvic congestion, sciatica, ovarian disease and various others. Goldthwait makes it plain that in pregnancy a definite relaxation takes place as a normal feature, and while this becomes more marked toward the end of the term it may be present the entire period and cause great disability. Every obstetrician observes the truth of that over and over again during the course of a year. He also says the sacro-iliac articulation is the weakest part of the body. Meisenbach makes it very clear when he says, "the pelvic girdle is the main support of the weight of the trunk, the viscera and the upper extremities.

"The girdle is held together by ligaments, the greater and lesser sacro-iliac. The fifth lumbar vertebra is superimposed on the sacrum, the sacrum is suspended between the two ilia; there are no other bony supports between the upper and lower extremities, the only supports being the ligaments and muscles. There are two important antagonistic groups of muscles, those radiating from the pelvis down and those radiating from the sacrum up. The muscles attached to the sacrum and supporting the spine and body in position, radiate up the back; the iliocostalis lumborum, spinalis dorsi, the longissimus dorsi and the other erector spinal muscles, these radiating well up the trunk and connecting indirectly with those attached to the occiput. The opposing group radiating from the pelvis down the limbs, the iliacus, glutei and the hamstrings.

* Read before the Indiana State Medical Association, at Indianapolis, Sept. 28, 1911.

These muscles exert their tension in the opposite directions and the resistance of their action is dependent on the ligamentous structure to hold the pelvic girdle in place." In lifting a weight too heavy for the strength of these opposing groups of muscles, with the sacral upward and the pelvic downward, something must give, and the sacro-iliac joint, being the least protected, must yield to the extraordinary force exerted in opposite directions, hence the strain or subluxation.

Morris (anatomy) on pages 835-36 has tabulated the sacral nerve supply. On pages 891-92 is described the sympathetic plexus that is well worth ardent study to one interested in sacro-iliac pathology. If one will reflect, the pathologic changes are those that affect other joints, osteoarthritis, osteomyelitis, acute or chronic, tuberculosis, syphilis, gonorrhea, typhoid, carcimoma, and last but by no means least but the most common, relaxation or luxation. All the literature I was able to review said that almost all of the cases of sciatica were now recognized as sacro-iliac relaxation. One said 90 per cent. Dr. R. L. Pittfield of Philadelphia said in twenty cases of his own, diagnosed as sciatica or sacral backache, all were relieved by treating relaxed or dislocated sacro-iliac joints. No one will dispute the fact that there is a true sciatica, a real inflammation of nerve or sheath.

Goldthwait and Osgood divide the clinical course into three groups. First, cases in which there is definite relaxation, associated with pregnancy, representing an exaggeration of a normal condition. Second, cases in which the relaxation is associated with menstruation, apparently representing a physiologic condition. Third, trauma, general weakness or some definitely known pathologic process. Meisenbach adds the neurotic.

The symptoms vary with the degree of relaxation. In extreme cases the patient is practically helpless, while in the mildest cases, perhaps during pregnancy or menstruation, there may be only noticeable discomfort. The first symptom is backache, especially when lying on the back or stooping, tender sacro-iliac joints, pain in the buttocks or along the course of the sciatics, often lameness, atrophy of leg muscles, or there may be a shortening of one leg and inability to rise out of a low chair or out of bed quickly.

The diagnosis is established by various methods. You will exclude actual joint disease with tissue change. If there is localized pain or pressure over one or both joints due to acute arthritis, pain in legs, numbness, tingling in toes or heels, proceed to manipulate the joint. I have a stool 9 inches in height. I have the patient rise if she can. If she cannot rise without stiffening the back and supporting herself by placing her hands on her knees, I proceed to examine the back. After the clothing is loosened I have the patient lie between two chairs, as suggested by Goldthwait. If relaxation of the joints exist, relief is instantaneous. On inspection, the back is flat over the lumbar region or there may be faulty attitude. If the patient is laid on her back and the thigh flexed on the body it is impossible to flex the leg on the thigh without causing pain in the sacro-iliac joint on the affected side. Goldthwait's test consists in having the patient stand on one foot and then flex the thigh with the leg extended, with one hand over the suspected joint, the other over the symphyses pubes. The latter will move with each motion of the leg. Goldthwait says this will always occur in sacro-iliac relaxation.

Going back over my gynecologic work for a number of years I recall women who have come to me with pain in the back, ovarian region, appendix, and in the left iliosacral region, where I had not even an appendix for an excuse. Some would give a history of a fall, some the condition complained of since a severe confinement. I have tamponed them for months with no beneficial results. Have had uterine ligaments shortened, ovaries removed, curettements galore. I believe this is the experience of the average practitioner.

Case 1. June 27, 1909, a woman 50 years of age, married, came to me from a distant city. Her major symptom was a backache that she said almost killed her, and she looked the invalid she was—pale, anemic, rapid pulse, subnormal temperature, tired all the time. The pain radiated up the back and was worse at night; during the day she had an occipital headache; she had bearing down pains and believed the trouble to be uterine. A pelvic examination revealed the greatest amount of tenderness; the introitus vagina, uterus and tubes were tender; large hemorrhagic spots dotted the vagina; every tissue indicated an intrapelvic condition. I used iodin and carbolic acid for the endocervicitis, painted the vagina with iodin and placed glycerin tampon; advised her to return in three days: she was very faithful in her attendance for treatment; at every visit she would say, "oh if you could only help my back"; becoming discouraged she ceased to return and I lost sight of her until July 26, this year, when she returned with the same backache, the same intrapelvic condition. She had drifted from doctor to doctor; always the same treatment without beneficial results. I placed her upon a stool 9 inches high; she could not rise from it without placing

both hands upon her limbs half way between knees and thighs: both sacro-iliac joints were tender to pressure and the leg could not be flexed on the thigh; the pain was too severe; a pelvic examination revealed the same pathologic condition that existed two years before.

I painted the vagina with iodin, placed a glycerin tampon to relieve the congestion and to the pelvis I applied an adhesive bandage of zinc oxid strips two inches wide, overlapping each other, beginning a little above the gluteal fold and extending a little below the anterior superior spine of the ilium.

In two days she phoned me that she had had no pain since the application of the bandage; she could turn over in the bed without getting up, a thing she had not been able to do in three years; and to the present time has had no pelvic symptoms.

Case 2. Mrs. B., married, aged 37, came to me July 3, 1911, suffering with sciatica, she said, in the left leg. Had been a victim of it for three years, the pain followed the usual course down the extremity. There was no tenderness of the tissues along the track of the sciatic nerve or over the sacrosciatic notch. The tenderness over the left sacro-iliac articulation was marked and the back presented a flat appearance in that region. She could not rise from the low stool without support, nor could she swing the left limb, without pain in the joint. The leg could not be flexed on the thigh. She said that for a long time the pain was most severe in the day-time, but of late it had grown worst at night. I said, "can you remember when this pain first started?" She said, "yes; to tell the truth about it my man kicked me there; I was in bed for five weeks and left him as soon as I could get up and get away." I placed an adhesive bandage which gave relief in the day-time but made her so nervous she took it off at night. I then placed a pad made of worn muslin rolled into a flat pad over the left sacro-iliac joint, reapplied the bandage and instructed her to sleep with cotton pillow under the lumbar region to prevent sagging of the back. This gave her relief but it has not been permanent.

Case 3. Farmer, age 46; first saw him May 17, 1911. He had contracted gonorrhea some time in September, 1910, and about the first of October was taken with what his attending physician said was malarial fever. He gave a history of chills, fever and sweats which, in spite of treatment, continued five weeks, when he got some better though the improvement was only of a few days' duration. Was taken with a severe pain in the left thoracic region about the midaxillary line on right side and a hard chill, followed by a rise of temperature. Diagnosis, pleurisy. This lasted about ten days. He had changed physicians in the meantime. The acute symptoms subsided and the patient improved enough to get out of bed. Improvement lasted two days when the pain returned with increased severity. The attending physician called consultation and a careful examination was made which included aspiration of right pleural cavity with negative results. I had not the pleasure of meeting these physicians but the history as given by the patient and attendants was of faithful effort toward diagnosis and treatment. When I saw the patient May 17, 1911, he was much emaciated, had lost 40 pounds in weight, but the temperature, pulse and respiration were normal. Heart, lungs and abdominal regions negative; pupils reacted slowly to light; the knee-jerks and tendo-Achillis reflexes were normal on both sides; there was a normal response to plantar stimulation; phalangeal joints swollen and tender; knees slightly so, as were ankle-joints and toes; pain radiated up the back and under the short ribs on left side. As long as he made no movement he was fairly comfortable but attempt at movement was a different picture. He would roll stiffly to one side and had to be assisted to a sitting posture, then placing his hands on the bed and arching his stiffened spine would rise slowly to his feet and with the assistants lifting him by the shoulders supported him while he walked. Standing, the body listed to the right side. There was marked increase in size of right thorax; back flat over lumbosacral region; lower dorsal spine prominent; flexion of spine limited to cervical spine; great tenderness along entire spine; lying on his back could flex thighs on abdomen, but could not flex the legs on the thighs; all the pain was above the sacrolumbar articulation; entire absence of headache; bowels constipated; urine normal, in color, reaction, amount and specific gravity; no albumin, no sugar. They had been keeping a temperature chart; there had been no temperature above normal for several weeks.

I believed it a case of gonorrheal arthritis and spondylitis. May 20 I gave him 1 c.c. Neisser bacterin, containing 100,000,000 dead bacteria. Within three hours the temperature rose to 102.8. The next day there was increased soreness of all the joints involved, also increase of urethal discharge; otherwise he felt better. Temperature remained above normal for six days. I repeated the dose of bacterin and his temperature rose again and remained above 99 for two weeks. The pain in the back became more severe. He could not now be moved even in bed. I began to doubt my diagnosis. Von Pirquet's test, old T. B. No. 4, M. 10, gave negative results.

The patient was seen by numerous consultants but in spite of their assistance he grew steadily worse, and it seemed he must die of exhaustion. The slightest movement made him scream with pain; could only assume the upright position with an assistant to lift him with hands under each axilla, when his head would fall helplessly back; screaming with pain he was a pitiful, heartrend-

ing sight. I am indebted to Dr. M. A. Austin of Anderson for the diagnosis of this most interesting and difficult case. He saw him in the thirty-sixth week of his illness and confinement to bed. Diagnosis, sacro-iliac disease. He was placed in a Buck's extension; the pain stopped at once; he remained in extension splints three weeks. The twenty-eighth day from application of extension he got up without assistance or pain resulting. The treatment was supportive and feeding. I dismissed the case the sixth week after the adjustment of the extension, and the last I heard of him he was weighing wheat in the barn lot and sent me word he felt as "fine as a fiddle."

I believe too little attention has been paid to the spine, its function, flexibility and pathology. As a result the spine adjusters have found a fruitful field, yet having no logical reason for the faith that is in them.

The general practitioner doing obstetric work has paid too little attention to the backache and helplessness of the pregnant women coming under their care. The pregnant woman so helpless at her confinement she must be lifted into bed, should receive the same careful technic in the application of her abdominal binder that is applied to asepsis. It should come down well over the trochanters, pinned snug and tight to within 1½ inch of the crest of the ilium. From there up make snug, remembering it is the sacro-iliac joints you want to support, not so much the abdomen, and the gynecologist will not have so much to bless us for.

The woman who comes into the office with a killing backache and a history of nursing a bed-ridden parent for months, is not suffering with prolapsus uteri as a result of her work (she makes the diagnosis) but more likely from the strain of a joint whose mobility has heretofore been questioned by the medical profession.

DISCUSSION

DR. J. V. REED, Indianapolis: There is perhaps no joint in the body that has been so neglected as the sacro-iliac joint, for the chief reason that it does not make its manifestation when it is abnormal so directly as the other joints. Its manifestations are referred practically to the back of the thigh, or to the back of the sciatic nerve, or to the small of the back. Now I have here a dissected pelvis in which I have tried to show the relation of the sacrum to the other bones of the pelvis.

One point I wish to emphasize especially. Most of the older text-books of medicine speak of the pelvis as an arch of which the sacrum is the keystone. That is wrong. It does not fit in like a wedge. This sacrum is suspended by the two iliac bones, as you can see it here. The whole tendency of the sacrum is not to act as a keystone between the two, but it is suspended between the two iliacs. So the whole weight of the body is suspended between the iliac bones by these ligaments or muscles, and these muscles are not arranged to take up the greater part of the strain as in other parts of the body, and if anything weakens these muscles it immediately puts more weight on the sacro-iliac joint.

It is a comparatively easy condition to treat if you once make your diagnosis. The great trouble is to recognize that that joint is involved. Perhaps 99 per cent. of the pains of the back are due to laxness of the sacro-iliac joint—not to kidney trouble, to rheumatism, to gout, to retrodisplaced womb — but due to laxness of that joint, and if you simply use the various tests you will find that trouble in a majority of cases. I have a test, and that is to have the patient stand with legs apart so I can get at his back, put my hands across the sacro-iliac joint and put my thumbs over the joint, and then go from one side to the other like this, and you can very frequently feel the slipping between the bones. The relief from simple treatment is very gratifying.

In my cases where the muscles of the back have become weakened from no cause, I hunt this looseness of the sacro-iliac joint. I have tried several methods of treatment and one is strapping with a broad adhesive bandage. I have the patient take hold of a door, with his hands up, then I start the adhesive bandage and have the patient turn, and this means an amount of pressure you cannot get otherwise. I run this from the top of the crest of the ilium down to the trochanter. That makes a good bandage, and having the patient turn you get more pressure than if he stood still and you put the bandage around yourself.

Another scheme, I use an ordinary abdominal supporter and put it on backward, and it gives a great deal of support in some cases. I have tried a brace, but you have to have these made for the patient. When I do use a brace I simply make a plaster cast of the patient and send it to the factory. But in the majority of cases the adhesive put on very, very tightly will give very gratifying results.

I want to congratulate Dr. Charles on bringing to our attention a subject that has not gotten into the text-books yet, but is just being talked about in societies of this kind.

DR. HANNAH GRAHAM, Indianapolis: I feel as though this paper ought to attract the attention of our society, and I regret sincerely that there are not more persons present. I have had the experience of several patients coming into my office; I gave them treatments, but the pain still remained. I have quite a few that I did not know what was the matter with them. Other physicians through whose hands they had passed did not know. Their tubes have been removed.

their ovaries have been removed, they have had all sorts of palliative treatment, and still the pain remains in the back. But I am going home and send for these patients, and I will try to make my diagnosis and possibly will be able to relieve them by what I have learned this afternoon. Knowledge is knowledge wherever it comes from, and we as a medical profession should feel the importance of the suggestions which are brought here to us and try to take advantage of that which is given us. And while I have heard some of the most eminent men and women that we have in this country on gynecology and all that sort of thing, yet I have at no place heard this particular subject presented and discussed as by this paper and the discussants this afternoon, and I hope each person here will receive as much benefit as I have. I hope to distribute my knowledge which I have received here, to the great benefit of my patients.

Dr. Alice Williams, Columbia City: I have enjoyed this paper and surely have received some benefit from it, although I am a great advocate of strapping. I strap for ovarian trouble, and also for pain in the back. I have the reputation of doing the most strapping of anybody in town, and I say what will be good for one will be good for another.

A RÉSUMÉ OF SOME OF THE MENTAL PHASES OF SYPHILIS *

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In attempting to write of any phase of syphilis we feel overwhelmed by the immensity of our task. Vast volumes have been written on this subject, skilled observers have spent the best years of their lives in its study and observation, thousands of dollars have been spent in an effort to discover its cause and to combat its deadly effects on mankind. And why, we may ask, has all of this been done? The answer is this: First, it is one of the oldest diseases known to mankind and has been written about in the earliest forms of medical records. It has borne many names, some of which are rather pathetic, as the term "king's evil," undoubtedly used because of the proneness of ruling monarchs to contract the disease and hand it down to their descendants through heredity. This may explain the mental and physical weakness of many of the royal families who, as royalty only mates with royalty, are so apt to continue through generations any serious weakness for the want of the good, healthy corpuscles that are supplied by the heterogeneous marriage of the butcher, the baker and the candlestick maker.

To recall a rather amusing term used to describe syphilis, we may mention the German term "Krankheiten der Französen," or "the French sickness." Here they evidently blamed the French, their hereditary enemies, for the awful malady. Other more common terms are *"lues venerea," "morbus gallicus," "pox," "bad disorder,"* etc., and the general term in use to-day of "syphilis" comes from two Greek words, *sus* and *philos,* meaning a lover of swine, the idea being possibly to express the loathsomeness of the disease. Dr. William Osler has said that "if we know syphilis we know medicine," which shows his idea of the great number of different forms that the disease takes. Even those who may not be religiously inclined, when studying the disease are reminded of the biblical statement that "the sins of the parents shall be visited on the children to the third and fourth generations," for in no other disease possibly do we see more clearly the hereditary effects and, alas! the poor innocents suffering for the guilty.

For a classification of the mental phases of syphilis I am inclined to accept that of Church and Peterson as the best, under the general heading "Syphilis of the General Nervous System." They divide the forms first into active specific lesions and secondly parasyphilitic diseases; under the first heading we have cerebrospinal syphilis, acquired and hereditary, both the early and tardy forms; meningitis, cerebritis, arteritis, neuritis, meningomyelitis, myelitis, spinal paraplegias, mania, melancholia and pseudoparesis. And under the parasyphilitic forms we have, first, those that are acquired by the individual, viz., tabes, dementia paralytica, neurasthenia, hysteria, epilepsy and neuralgia of syphilitic origin; and, secondly, those that are directly hereditary, such as juvenile tabes or paresis, infantilism and hydrocephalus. In view of the large number of forms we shall only attempt to review the most common and most interesting. In hospitals for the insane by far the largest number of cases whose trouble can be traced to syphilis are the cases of dementia paralytica or paresis and cerebral syphilis; tabes dorsalis, so frequently of syphilitic origin, and a rather common disease, is also of great interest. As to the etiology of these diseases in cerebral syphilis, there is of course always present the direct, active infection, produced by the *Spirochæta pallida,* the germ of syphilis, which by actual infiltration of the nerve tissues impairs their functions and causes eventually their death.

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* Read before the Jefferson County Medical Society, March 13, 1912.

Symptoms may appear, according to various authors, anywhere from a few weeks to five or six years after the primary infection. These symptoms also vary widely, according to the location of the infection; there may be neuralgic pains, convulsive seizures, eye symptoms, paralysis, mania and stupor. We observe in most cases a premonitory period evinced by headaches, disturbances of sleep, some physical weakness and lassitude and slight mental disturbances. It is in this period that vigorous treatment should be instituted if we hope to break up the disease and effect a cure; if we wait until later the damage has been done and all that we can do is to arrest the disease and leave the brain and nerve fibers free of the active infection possibly, but clogged and hampered by scar tissue. The headaches may be extremely severe, are deeply seated and often circumscribed with local tenderness; they occur frequently at night and are likely to recur daily, but may remit without any apparent cause and this remission may be followed by a ptosis or even a hemiplegia. These patients may have insomnia at night or sopor during the day, the patient frequently dropping asleep over his work, while reading, or even at meals. He is apathetic, disinclined for study or work, and will not even bestir himself for his own amusement; he may grow irritable or be very deeply depressed. A sudden violent onset with delirium may usher in an attack. Giddiness and epileptiform seizures are not infrequently seen. Some of the symptoms resemble those of paresis and tabes, especially tabes. The pupil is suggestive of the Argyll-Robertson, quite sluggish in its reaction to light but some reaction still present; loss of the reflexes is common, but the onset of this symptom is too rapid to be confused with the slow progressive course of tabes. Ocular muscle paralysis and amblyopia may be present, paralysis of the muscles of mastication with intense fibrillary tremors may occur, due to the involvement of the motor branch of the fifth nerve, or very severe tic douloureux from its sensory branch. During the early course of this disease any trauma of the head may precipitate and focalize the syphilitic lesion in the brain, possibly by lessening the vitality of the tissues and thereby decreasing their powers of resistance. It is even claimed by some authors that the same is true of mental shock, fright and alcohol. The disease, as to prognosis, is far from favorable; probably less than one-fourth of all cases recover. When not arrested it progresses through an increasing bodily disability, convulsive seizures, paralysis, extreme dementia and death.

Since this form of syphilis is an active infection and curable if taken in time, a word as to treatment may not be amiss. All treatment avails little in the later stages when degeneration of the blood-vessels and softening of the brain and sclerosis of the fibers have become intense. In all cases of syphilis, as we would expect, vigorous, early antisyphilitic treatment lessens the danger of cerebral implication. Nothing has as yet been found to take the place of mercury and the iodids, though some very good results have followed the use of salvarsan. Some physicians prefer mercury alone in dram doses of unguentum hydrargyri, daily administered by inunction to different parts of the body. The hypodermic injection of the bichlorid or salicylate may be used or the administration of some of the mercurial salts by mouth. If iodids are used the iodid of sodium or strontium is preferable to that of potassium, in doses of 10 minims of an aqueous solution containing 1 grain to the minim, three times daily, and increasing by 5 minims daily until the patient is taking 60 or even 100 grains of the iodid a day; if this fails to benefit, larger doses are probably useless, although some of these cases have shown a marked improvement when given 600 grains daily (an ounce and 2 drams), according to Musser and Kelly. If mercury and iodids fail to benefit, stop the treatment at once. Among other drugs that have been found useful are bromid, chloral, acetanilid, phenacetin, antipyrin and sodium cacodylate.

Possibly the most interesting mental phase of syphilis is shown by the cases of dementia paralytica or paresis, and this disease is so well known that it needs little description to the general practitioner.

In contradistinction to cerebral syphilis antisyphilitic treatment will not cure paresis, nor do we know anything as yet that will. Its tendency is to pursue a relentless course, steadily onward and downward, terminating almost uniformly in death. Also, unlike cerebral syphilis, the active causative factor, viz., the spirochete, is not found in cases of paresis; thus it is a parasyphilitic disease. Authorities vary in stating the percentage of cases of paresis caused directly by syphilis, some as low as 30 per cent., while some eminent observers claim "no syphilis, no paresis," or, in other words, that, could the facts only be found out, *all* cases are due to syphilis. From my personal experience with these cases I feel inclined to agree with these latter. Paresis is a chronic progressive meningo-encephalitis, associated with psychical and motor disturbances which finally lead to ataxia, paralysis, dementia and death. The onset is slow and insidious,

beginning possibly years after the initial infection, in cases either not treated or insufficiently treated.

A very early symptom, observed possibly years before any *marked* symptoms occur, is that of an Argyll-Robertson pupil; later, but still as early symptoms, we observe a slight change in the disposition of the patient. A man who has been careful in all respects becomes careless, forgets things, neglects his personal appearance, is irritable, neglects his business, then begins to show apathy or indifference, commits acts that astonish his friends, begins to formulate wild schemes to make money, spends lavishly, becomes extremely egotistical, has delusions of grandeur and power. He boasts of his wealth, his achievements, his personal property, his wife and children even. At this period there may be no motor disturbances; these are first displayed as a slight tremor of the extended tongue, followed by a general tremulousness of lips and facial muscles, a slowness and hesitancy of speech and some ataxia shown by an unsteady, shuffling gait. As the disease progresses there is, in addition to an exaggeration of these symptoms, a gradually increasing loss of memory, periods of great mental exaltation and excitement, when the patient owns billions of money, all of the automobiles in the world, gives entertainments to kings and rulers, has untold power. They become restless, boisterous, noisy and at times display a blind uncalculating violence; these attacks are frequently succeeded by profound melancholy. As the disease progresses the patient becomes more and more demented, memory fails almost entirely for recent events. I have told a patient my name and had him repeat it after me, turned away for a few seconds to speak to another patient and then asked the paretic again to tell me my name and found that he had absolutely forgotten that I had ever told him what it was. The ataxia grows more marked, so that from a shuffling gait they become helpless in bed, the speech defect becomes so pronounced that one cannot understand them, they develop apoplectiform and epileptiform seizures, choke over their food, have partial paralysis and finally die most frequently from cerebral hemorrhage. The faces of these patients take on a peculiar stolidity that enables one accustomed to seeing them almost to diagnose the case on sight. A peculiarity which I have not seen mentioned but which has struck me forcibly in many cases of paresis is the fact that almost up to the point of death they retain a strong muscular grip in their hands. In its typical cerebral form the disease runs its course in about three years, though occasionally we see unaccountably long remissions. In speaking of symptoms, we must not forget the peculiar shaky handwriting, the lost or exaggerated reflexes, as the case may be, the emaciation and the trophic disorders, the weakening of judgment and the lack of orientation.

While inclined to agree, as I stated, with the opinion "no syphilis, no paresis," it is but fair to state an observation by Haines and Peterson, which would seem to disprove this. They state that "among the native Egyptians, where syphilis is most wide-spread, scarcely a case of paresis has been reported, and in the asylums of Cairo not one case was to be found." They also call attention to the fact that spirituous liquors are practically never used by them, as the Koran interdicts their use, showing that they think alcohol a potent factor in paresis.

Before leaving this subject, I wish to say a few words about one other disease that may be confused with the two already discussed and which is undoubtedly of syphilitic origin, most frequently, if not always, viz., tabes dorsalis or progressive locomotor ataxia. This disease is parasyphilitic, like paresis, and not due to a direct, active infection by the *Spirochæta pallida;* the lesion pathologically is a progressive degeneration of the posterior or sensory nerve fibers of the cord and similar changes in medulla and cerebrum.

Tabetic symptoms may occur in from one to thirty-five years after the initial infection, usually from the fifth to fifteenth years. This disease frequently occurs in cases that have taken treatment early and thoroughly for three years. A disturbance of muscular sense is an early symptom; patients with their eyes closed cannot tell in what position their limbs are placed. They "lose their legs in bed," the "Rhomberg sign" is early present; with heels together and eyes closed they sway and may fall if not caught; then come the "lightning-like pains" that shoot through various parts of the body, also burning, boring or twisting pains; the loss of ordinary pain sensations are among the prominent symptoms. Then comes the ataxic gait, with increasing muscular weakness; the reflexes are lessened, unequal or gone entirely, there may be ptosis and squint of the eyes; the pupils may fail to react to both light and accommodation: there is an optic nerve degeneration in possibly 10 per cent. of the cases; gastric crises and vomiting are frequent symptoms.

Between paresis and tabes there are many points of resemblance and, pathologically speaking, many well-known authorities claim them to be essentially the same; but clinically they mani-

fest some marked differences. The early symptoms, as brought out, of paresis are *mental,* while those of tabes are *physical;* the mental symptoms developing in the last stages, if at all. Tabes is much longer in running its course as a rule; they are both parasyphilitic and occur about the same time after the original infection. In tabes the spinal symptoms are all of the sensory type, in the end stages there is no true paralysis in tabes, merely a helplessness of the muscles, due to enforced disuse. Optic atrophy is rather rare in paresis and frequent in tabes. The mental symptoms are well-marked and diagnostic in paresis and may be absent altogether in tabes, as some cases retain a bright intellect to the end. Cases of tabes are rare in hospitals for the insane. In their weakened condition tabetics are quite apt to succumb to pneumonia, that dread malady that Osler calls "the friend of the aged and the captain of the men of death."

As we think of the enormous number of splendid intellects ruined, of the homes made desolate, of the innocent children born into the world with the curse of this terrible disease on them, let us, as physicians, warn our patients and friends in the strongest terms at our command, of the dangers of syphilis, which are far greater than death.

REPORT OF CASE OF LARGE OVARIAN TUMOR FOR PURPOSE OF RECORD

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In these days of perfected surgery it is not often given to any one to see large ovarian tumors, as such growths are usually removed soon after found. I desire to report this one as I can find no parallel in records at my command.

It occurred with one of those unfortunate women who "did not believe in operations," for if she had, so far as the tumor was concerned, she would doubtless have been alive and well to-day.

In September, 1906, Mrs. H., aged 62 years, of this city, consulted me about some shortness of breath and irregular action of the heart, and believed she had heart disease. On examination I could not find any organic disease of the heart, but on palpating the abdomen, found an ovarian tumor of the left ovary about the size of a fetal head at term and freely movable, but evidently having a short pedicle. I gave it as my opinion that this was the origin of her trouble and advised its immediate removal. To this she would not consent as she "did not believe in operations." As time went on the tumor increased in size and for the last three years she has been practically confined to the bed and chair. The functions of the body continued in a normal way but the growth of the tumor gradually took away the nutrition of the body so that, at the time of her death, the woman was a mere skeleton. I was unable to get a photograph, which I very much regret.

After death, the undertaker found he could do nothing until the tumor was removed. This could not be done at the home and the body was taken to his morgue. I was called in to see and assist in removing the growth. The tumor completely filled the abdomen and hung over the pelvis and thighs down to the knees. Where it rested on the thighs, the muscles were completely atrophied and only the skin covered the femurs. It pressed upward and expanded the ribs, which looked like wings. It was adhered to the anterior abdominal wall but there was not a single adhesion to any of the organs. The pedicle was the length and breadth of two fingers. The tumor was turned out *en masse* in a large wash-tub and hung over its edges. We had scales brought in and weighed it. It weighed even 140 pounds. The contents were of a purulent, bloody, gelatinous consistency. The tumor was a multilocular cyst. As near as we could ascertain, the body weighed 80 pounds.

THE PSYCHOLOGIC VALUE OF A CORRECT DIAGNOSIS

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Owing to the very vital and important rôle played in determining the success or failure of so many engaged in the practice of medicine, and considering that so little is written on the subject in our text-books or medical journals, I have thought it might be of interest and some benefit to consider briefly the psychologic value of a correct diagnosis.

No greater compliment can be paid the science of medicine to-day than the rapidly increasing demand by the public for not only an early, but a correct diagnosis. This is largely due to the fact that the facilities for perfecting men in the art of diagnosis, as well as laboratory means for confirming or aiding in the diagnosis of disease, is a common knowledge, not only to the profession at large, but to the laity as well.

While it is a great advantage to have a good book knowledge and training in the science of psychology, the lack of this by no means prevents one from using it daily in the practice of medicine. To be calm, but quick in observing the effect and manifestations of a mental depression made on your patient, with a good active analytical mind, qualifies any one to become sufficiently proficient to make the most of his opportunities while engaged in practice, and also to encourage one to fully appreciate the value, as well as to take advantage, of a correct diagnosis.

How often a young physician suddenly springs into prominence in a community because his skill in diagnosis has attracted the attention and secured the confidence of his patient to such an extent as to give him complete psychologic control over his patient and the immediate family, as well.

In the manner of making one's diagnosis it is well to be not only alert, but cautious and considerate at all times, as one never knows when, or by what act his professional measurements are being taken.

This subject presents many interesting features for consideration. It must be admitted that each of us has, at times, been a bit surprised, if not discouraged, and we have asked ourselves how essential to the success of one engaged in the practice are medical knowledge and skill in making a correct diagnosis. Among a certain class of patients, seemingly, it is not important. An evidence of this is seen in the great number of people who, with imaginary or real ills, drift about from one regular practitioner to another, and finally place themselves in the care of some osteopath, charlatan or various faith healer who, with no knowledge of the science of medicine or disease, often apparently cures such patients after intelligent and legitimate practitioners have failed. Of course, in such cases no real disease existed, or the ailment was a self-limited one and the recovery quite spontaneous. In the first instance if there was only a neurosis, or possibly a psychosis present, such should have been recognized. By a thorough and careful physical diagnosis, organic diseases should have been excluded, and with proper psychologic management the physician could have retained the confidence and control of the patient and have improved the opportunity to dampen the enthusiasm, born of ignorance, which characterizes these various shriners.

It is an unsafe practice to condemn a creed or cult to a patient who is in dire distress and who has failed to get relief from an organic or functional disorder at the hands of one or more regular practitioners. It is often a distinct advantage to say to your patient in a frank and straightforward manner that you believe Christian Science is at times capable of doing good in neurotic subjects; that the field of such irregular and unnatural practice is very limited, and frequently does great harm when applied as a therapeutic measure. Personally I would not hesitate to give an example showing that such a practice is criminal. A statement thus made sincerely, invariably surprises and impresses a patient whose faith in scientific medicine is waning. In this way you can easily bring your patient to sympathize with you in your belief, or make him apprehensive of the results, should he, after being convinced of your sympathy and medical intelligence, go contrary to your orders. By tact and honesty there is seldom any trouble in establishing a very pleasant and profitable psychologic control over a patient who may, at that very time, be taking "Christian Science treatment." If he is a neurotic, as many of our patients are, why not keep his confidence and respect and allow the heresy to take care of his many petty ills? Such a person, when really sick will not only regard you as a friend, but when a patient, follow implicitly your medical instructions.

To make such a remark, or to take such a stand as this, not only presupposes, but it makes absolutely necessary that you should know your patient most thoroughly, temperamentally and physically, and that you should be so fortified in the correctness of your diagnosis as to enable you to bear yourself with sufficient dignity and calmness as to yield a force over his mind that will at once convince him of your sincerity as well as ability to correctly diagnose and successfully treat his ailment.

Does the science of medicine have any need of the mantle of religion, as planned and practiced so recently by the Emanuelists, to make it more popular and acceptable to the public?

The answer is evidenced in the fact that the science and art of medicine, when properly applied, has been the means in missionary fields of introducing and spreading the good influence of true Christian religion, more than any creed or cult bearing religious stamp or pretense.

In the last few hundred years many changes and modifications have been made in religious creeds and practices that they might continue popular and consistent with the rapidly changing business and social requirements of the day. Has ever a single well-established scientific medical fact been altered to suit social requirements, or

refused adoption by the business world? While there should be no thought of comparing the good done by Christian religion and scientific medicine, the latter when based on a correct diagnosis and proper application of the art requires no fancy of imagination to realize that scientific medicine brings almost as much worldly peace, comfort and hope to the human race as does religion as practiced to-day.

Certainly it requires greater diagnostic knowledge and skill to practice rational psychotherapy than medical therapy. In the use of drugs so much empiricism is practiced that often it is not a matter of great moment as to which particular one of a class of drugs you should administer; in short, you have more than one chance, but in psychologic practice you must formulate your plan of procedure, keeping in view all the possible contingencies knowing full well that, to an extent, your patient is in full possession of your knowledge and plan of procedure; that steps taken and declarations made cannot be withdrawn without harm. This causes one to realize how very careful and thorough he must be in his diagnosis, and how quiet, yet strenuous when trying to control your patient from a psychologic standpoint, to make the most of a psychologic opportunity.

Patients with organic diseases, when thoroughly imbued with hope and confidence, not infrequently show marked improvement in their symptoms; for instance, with a new doctor and renewed hope, there is a temporary return of the appetite in case of gastric cancer, or the abatement of the sensory symptoms, and often improvement in motor ones, in subjects of locomotor ataxia.

Much to the credit and benefit of scientific medicine, pure functional diseases are rapidly decreasing and most of the so-called neurotics are now recognized as victims of some obscure organic disease. With our ability to yield a certain favorable influence over the course of an incurable organic disease; to lessen its loathsomeness by proper medication, convincing the patient that everything possible is being done for his relief; holding before him every little ray of hope and comfort; skilfully minimizing the unpleasant features of his disease and with our equal opportunity to understand and control functional disorders, the broad-minded and thoroughly qualified men in medicine have nothing to fear from the irregulars and quacks.

In the management of a nervous patient, and oftentimes in the handling of those with organic diseases, it is wise and best that the physician should not only be forebearing but tactful enough to manifest no displeasure at the whims or fancies displayed by the patient or anxious relatives. His medical knowledge and experience may make such errors on the part of the patient very glaring and exasperating but he might be safeguarded to an extent by recalling an old saying that a creed or practice of the past is called superstition, but of the present day, religion; and a faith now confessed may be superficial, and a faith long forgotten may have been sincere.

How often we see honest and competent medical men fail in practice; not for want of skill and ability, or industry and good intentions, but because they lack wholly in the flexibility and elasticity of temperament so necessary to touch the psychologic point at the most timely, and in the most correct way. Here, however, appears the critical and often tempting situation, and frequently on this very ground there breaks forth from among our ranks one fully armored in medical ethics and medical associations who, with seeming delight, boastfully declares that he succeeds in medicine by treating his patient and allowing the disease to get well of itself. This is not the kind of medical man we wish to discuss or emulate, and he may be dropped with the simple statement that such a person is dishonest. Yet by his side we see the honest man toiling faithfully, often expending needless time and energy with half the success, only because he is utterly lacking in the ability to read correctly the mind of his patient, or to appreciate the influence and value of a mental suggestion, and who gives no thought to the advantages of the psychologic possibilities of the situation, which are entirely at his command and under his control. How often by a single imprudent remark, or allowing the wrong interpretation from his own acts, does one's patient gain a fixed idea, or a systematized delusion, and the physician at once loses all control and sees his patient fall into the hands of, and place himself wholly at the mercy of, the irregular, ranking from the cunning Christian Scientist down to the boldest advertising quack.

Dubois well describes these possibilities when he says: "I have seen a physician seriously trying to console a lady who was afflicted with nervous trouble by assuring her that she would be better at the menopause. She was then 32 years old."

Fortunately, few physicians are by nature cold or unsympathetic, but how many fail to soothe or comfort a poor helpless patient suffering from an incurable disease, simply for the want of a diplomatic nature. One physician will have a

case of tuberculosis wrought up to a point of desperation, while his successor will, with few or no medicines, restore the anxious mind into a state of tranquil relaxation solely by a psychologic influence.

Perhaps the most painful failure in the practice of medicine is the ultrascientific man. Burdened with titles and degrees he fails ignominiously, and why? Not from a lack of knowledge or skill, but owing to his eagerness to learn more about the disease alone, he forgets that he is dealing with both the body and mind, and entirely overlooks the feelings of the patient. He fails for the want of attention in establishing that sympathetic psychologic relation which is the first essential to success. He sees little and says less about the case that is not of interest or benefit to his own mind. He either promises nothing, or is vaguely scientific and uncertain in what he does say to the patient or the family. A good readable magazine article is too frequently the sole and only product of his ability and opportunities.

Dubois describes this situation graphically when he says: "A patient should immediately feel that the physician does not regard him only as a 'client' nor as an interesting case, but as a friend with no idea but to cure him. We practitioners ought to show such a lively and all-enveloping sympathy that it would really be ungracious of him not to get well. When a patient experiences this state of mind he is already advanced on the way to cure. He is like one under a spell of kind thought, and this moving point gives him at once the euphoria. The physician experiences the counter-action of this emotion, and can also say to himself 'that is all right; my patient will get well.'"

A physician's power to influence depends on the depth of his convictions, but, however deep, they must be sincere, and established entirely on a correct diagnosis. This view of the future will bring hope to the patient, and give him the feeling of certainty. The charlatan does not hesitate in his statements; not he! He is presenting himself as a healer, and failure does not baffle him. The so-called healers, who cure by religious influence, can always beat a safe retreat by saying "you did not have faith." The physician who wants to have recourse to rational means only does not resort to such measures; his examinations and diagnosis must be made according to the established rules in clinical medicine. Such a course may be regarded by some as practice by suggestion, pure and simple. To an extent this is possibly true, but any honest course, based on intelligent suggestion and study, becomes entirely legitimate when we consider the duty we owe to a patient who entrusts not only his health but his happiness to our keeping. We should bear in mind that as practitioners we have as a part of our obligation as much to do with the happiness and peace of mind of our patients as with their physical comfort and well-being. To overlook the feelings of our patient, no matter how skilful or correct our diagnosis may be, is to lose the opportunity of establishing a psychologic relation delightful to experience and very essential to success.

Who should know more of the psychologic condition, as well as the organic disorder of a given patient, than an educated and well-trained physician? Who is better able to judge with promptness how to intelligently and successfully manage a patient in a given situation? And yet his success depends primarily on the thoroughness and accuracy of diagnosis, whether made in a positive way, or by the process of exclusion.

Books on diagnosis, as Washington Irving says of books of good poems, "cannot be opened at the wrong page, and too often instead of making a full meal on them, we only take a taste."

How often the physician at the bedside appears timid or awkward to those interested by the disorderly method of his examination, and his evident lack of confidence in his procedure; or, worse still, by his feeble and often very perfunctory examination he does not make the desirable mental impression, and later finds himself unable to furnish that logical and convincing argument, with sufficient force to give him the manner of thoroughness and air of ease that dispels all doubt, and allays the fears and anxiety of his patient.

A common cause of losing the confidence and psychologic control over one's patient is the tendency often of a good physician to cloud and confuse the whole diagnostic evidence by finding too many and varied ailments. No odds how complicated the clinical picture may be, it is of extreme importance that one possess enough diagnostic skill and ability to harmonize as many symptoms as possible under the head of one disease. No greater compliment can be paid the diagnostician than his ability to differentiate sharply between a complicating or symptomatic and a coexisting independent disorder. When such a confused clinical picture is present, one should have the diagnostic ability to carefully separate and analyze the findings, and only reluctantly admit the presence of a second ailment after a most painstaking and thorough examination.

Nothing so taxes, as well as tires the physician, as the attempt to keep his patient's mind free from the harmful influences of a previous cloudy diagnosis.

Very fortunately for medical men, many diseases which gained a reputation in years gone by

as being incurable are to-day, in the light of modern science and up-to-date means of diagnosis and surgical art, easily brought within control. Formerly pulmonary tuberculosis was as a rule diagnosed very late, when the disease had already advanced to a state quite beyond relief.

How strange to think that recognition of pulmonary tuberculosis by our forefathers in medicine was treated as a great secret and talked of, not to the patient, but to the members of the family and then with hushed breath, as the physician and all concerned felt that the poor victim's doom was sealed, and there was no help or escape, the patient was permitted as much happiness and peace of mind as the length of time the secret might be kept from him. The dear good doctor had simply made a diagnosis of "consumption" and gave no consideration to anything further. How very different now: the physician, first of all, is, very properly, expected not only to recognize the disease early, but to confirm his findings or disprove suspicion by the various laboratory or scientific methods now at his command; to at once call to aid and put into action all the influences known to effect a cure, from the most thorough practice of modern hygiene, to the most technical scientific vaccine therapy. To-day the neglect in the active and intelligent employment of such measures would certainly call for a just reproach to any up-to-date physician. As our surgical friends formerly would say, we now treat tuberculosis "by the open method." Could any but the highest inspiration and confidence of the patient result from such thoroughness and open activity on the part of his medical attendant? Making a diagnosis to-day, simply of pulmonary tuberculosis, would neither justify the practice of medicine nor satisfy our patient. He has a right to know more, and just in proportion as we with our diagnostic skill enlighten him, and in a measure foretell the course of his disease and its amenability to treatment, will we gain and hold his confidence, and wield that control over him and his family so necessary in obtaining the best results. What harmful influence will be excited by the temperament or occupation of the patient? To intelligently select the climate and altitude in which one's patient may receive the greatest benefit; and after symptomatic recovery will his condition preclude his taking up and following his usual vocation, or can his residence be changed to advantage? These problems present an opportunity for the physician to so shine in diagnostic acuteness and accuracy as to impel the most implicit confidence on the part of the patient and relieve his mind of any doubt as to who will or can control his case.

Again the somewhat superannuated custom was to hear a cardiac murmur diagnosed "heart disease" and prescribe digitalis, leaving the unfortunate individual to live in as much dread and apprehension as the popular idea of the gravity of this ailment could suggest and an imperfect diagnosis could impose on his mind. The well-meaning doctor, instead of being a help and comfort, only terrorized him into a greater mental agony than his ailment could possibly have done, had he, after a correct diagnosis, assured his patient that his condition, although one permanent in nature and perhaps slowly progressive in character, was not active or serious, nor would end his life suddenly or unexpectedly. Such a position on the part of the medical attendant would not only have given the patient great comfort, but doubtless prevented many of his real or imaginary symptoms. Not only this, but his confidence in his physician's diagnosis and management of his case would no doubt have saved him from falling prey to one or more of the irregular medical vultures perched on the highest pinnacle of religious pretense, down to the commercial hog, who roots his herbs, possessing such magical power from mother earth.

Why should we begrudge these scavengers in medicine an existence when we know only too well they largely exist on what we, for the want of better diagnostic skill or more tact in their management, really drive into their nets. How essential it is then to recognize and fully appreciate the psychologic value and influence of a detailed and correct diagnosis.

What place in the diagnosis of a disease have mechanical clinical instruments, or of what value is knowledge obtained in this way in the control of our patients? Although many mechanical instruments and appliances for both diagnosis and treatment of diseases are found not alone in the office of the medical quack, but too often among the paraphernalia of legitimate practitioners who keep them largely for display or pretense of thoroughness or the impression they may make on the minds of their patients. The mere taking of a blood-pressure observation is very simple, yet to correctly interpret and assign the proper significance to the finding is entirely another thing. We might use a mechanical device for studying the psychogalvanic reflex of our patient instead of watching and observing the mental fluctuations as evidenced by his manner and expression and save ourselves the effort of observing the rôle played by our suggestions. All instruments for aiding in a diagnosis, from a clinical thermometer to a complicated polygraph, are most valuable aids, and their use quite indispensable, although

the tendency of the times is to depend too much on such means in arriving at a diagnosis; too often at the expense of good common sense judgment in getting together carefully the clinical history and physical findings, both so easily within the reach and possibility of a well-trained medical man. To rely too much on instrumental means undoubtedly tends to make the diagnostician narrow and routine in his methods; he is never original or resourceful in his reasoning, and too often fails to observe and appreciate the diagnostic value and significance of conditions very essential to accuracy, but which does not come within the reach of his instrumental methods. While many objections may be raised against the instrumental methods of diagnosis, when properly used they educate one to finer observation and are invaluable in establishing beyond a doubt a diagnostic fact, and are also a means at our command by which we can so prove a correct diagnosis that the control of our patient becomes both easy and perfect. You say to your patient that he has abnormally high blood-pressure, but to measure and demonstrate this fact is most helpful when trying to persuade him to live a less strenuous life, or forego the use of tobacco or alcohol. Frequently, too, the mathematical calculations in diagnosis are our only means of influencing a patient to a consistent course of treatment. Instrumental devices, as aids in diagnosis, when used for their real worth, not for display or effect, cannot but help one using them intelligently to become a more thorough student of the literature on the subject; also a better and more methodical observer, and by their readings too he may often predict a change in the course of a disease much earlier than otherwise would be possible. Findings and conclusions arrived at by such methods should be final and leave no room for doubt or debate, and prove of material aid in keeping the physician in supreme command of his patient's confidence.

What should be said of the laboratory findings as an aid in diagnosis? It has been said, perhaps with more truth than elegance, that doctors frequently go to the bedside of a patient "stinking to much of the laboratory." Yet all know that laboratory research has done more in recent years to elevate the standard and broaden the influence of the medical profession than all other branches of medicine. In practice, however, laboratory reports may be of little or no real diagnostic value; worse still, they may be very misleading. What can be so inexcusable as to attempt the diagnosis of a chronic disease of the kidney by a chemical or mocroscopic urinalysis? The more recent investigations and findings along this line was one of the great surprises to the diagnostician and student of practical medicine. To deny the presence of a renal lesion, owing to the absence of albumin or casts in the urine, is ridiculous when a patient has a history of nocturnal polyuria, thickened and tortuous arteries, with cardiac hypertrophy and a dry and inactive skin. Such commonplace observations are of infinitely more value in a diagnosis than a urinalysis could possibly be. Often the laboratory examinations and findings are far from satisfactory, and unless the laboratory man is a trained and careful worker with a wide clinical experience, his report may be very misleading. As a means of gaining the confidence and retaining the control of our patients, the laboratory diagnosis often places us in a position of such absolute certainty as to leave no doubt in the mind of the patient of its accuracy. This is not only a distinct advantage in continuing a course of treatment which may of necessity be long and tedious, but affords the physician himself no small pleasure in feeling he is well fortified and supported in whatever sacrifices he may ask of his patient for the successful termination of his treatment. If you have your diagnosis well established and proved, you can easily say to a patient "you must do thus and so or pay the penalty," or you can assure him that an improvement will follow if he observes instructions. Not the least of the satisfaction of a correct diagnosis is the pleasure afforded in the management of the "tramp patient" in medicine, who, with a chronic ailment, seemingly delights in going from one physician to another, or a patient who is not improving as he would like peremptorily quits one and goes either to some regular practitioner or too often to a faker who makes promises without knowing. As a rule, sooner or later, this patient returns to you a wiser, but rarely a better man physically.

It is a good rule to make your patient respect you for your diagnostic ability, and love you for your earnest and sympathetic attention; but nothing so destroys your psychologic influence as to encourage or allow familiarity on the part of the patient. First it is certain to add to the burden of your work, and later you are sure to lose that delicate pyschologic control over him, or fail to maintain yourself in his estimation on that high plane from which you may yield the greatest and widest influence over his mind.

To be able to make a correct diagnosis is to enjoy the poetry of medicine; to perfect the art of physical diagnosis requires constant practice; but to be a master in this great department of medicine, as well as a practical psychologist, not only makes one's work a great pleasure but invariably insures professional success.

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EDITORIALS

THE THYROID IN PREGNANCY AND PARTURITION

So intimate is the relation between the thyroid gland and the generative organs in the female that it is now no longer surprising to have brought to our attention many abnormalities occurring in this gland during the pregnant state. Indeed, we feel now that there must be something at fault if a slight enlargement of the thyroid gland during pregnancy is not noted. During the last few years the question of the relation of thyroid perversions to the toxemias of pregnancy has received considerable study. In one case the lesion may be a deficient secretion or hypothyroidism, while in another there may be a hyperactivity associated with the actual hypertrophy of the organ. Were one able to determine definitely which process is taking place, a rational mode of therapy for many of our cases of toxemia of pregnancy would be at hand, and the matter would be one of easy solution. Not a few cases are reported wherein the administration of thyroid extract has materially relieved the toxic state when all other agents had failed; and some cases are recorded wherein pregnancy had been interrupted spontaneously or otherwise, because of hyperemesis gravidarum in previous gestations, and the individual carried to term in the subsequent pregnancy by the aid of the extract of the thyroid gland.

A most interesting dissertation and review of the literature on the question of the complications offered by the thyroid in pregnancy and the puerperium is that of Davis, appearing in the June number of the *American Journal of the Medical Sciences*. The author calls attention to the fact that thyroid enlargement in girls at puberty is not at all uncommon, but with the firm establishment of good general health under favorable conditions the disappearance of the goiter takes place. Frommer, reviewing the work of Vassale, by experiment and dissection demonstrated the function of the parathyroid glands in the production of toxins causing eclampsia and tetany. In these observations, later confirmed by Humphry, no colloid material was found in the parathyroids, Vassale regarding the thyroids as trophic glands and the parathyroids as producing an antitoxin. Frommer concluded that pregnancy and labor vitally influence the performance of the antitoxic function of the parathyroids.

Concerning the association of exophthalmic goiter with pregnancy, Audebert reports the case of a patient in her second pregnancy suffering from hyperthyroidism and toxemia, but with no albuminuria. Routine treatment including cupping and bleeding for the ensuing coma producing no effect, a feeble living child was delivered by forceps and the patient improved and finally made a good recovery on an absolutely milk diet. Thyroid extract produced no effect, but the exophthalmic goiter, which had existed for ten years, completely disappeared.

Charbin and Christiani report the case of a patient having for three years both myxedema and exophthalmic goiter. Thyroidectomy was followed by an increase in myxedema for which small implantations of fresh thyroid produced a favorable result. Pregnancy supervened and proceeded to a normal termination. Potte and Kervally report the autopsy on an eclamptic whose renal lesions as well as the hepatic ones were inconsiderable, but whose thyroid was greatly enlarged and revealed on microscopic examination fatty degeneration, cystic dilatation and the free formation of colloid material. Fry reports favorable results from the administration of thyroid extract in the case of the toxemia of pregnancy.

Gottschalk describes the case of a patient with so large a goiter as to cause severe pressure symptoms by obstruction to the larynx and respiratory passages. Although never pregnant before the patient was subjected to thyroidectomy and pregnancy supervened, followed by a return of the pressure symptoms. Labor was induced at seven months during which the patient suddenly died, apparently from shock. Kron reports two cases of mild hyperthyroidism becoming much worse during pregnancy and improving after labor. He believes that in the first half of pregnancy thyroid disease exercises a most unfavorable influence on the embryo, while in the second half the danger is to the mother.

Lichtenstein reports a fatal case of hyperthyroidism in a pregnant woman who had passed through two pregnancies successfully with no marked enlargement in the thyroid. During the third gestation the patient suffered from dyspnea and pronounced tachycardia with exophthal-

mos developing rapidly. She was admitted to the hospital with a pulse of 140, edematous, and 2 per cent. of albumin in the urine. Gradual dilatation of the uterus was followed by the delivery of a dead child by the breech with much difficulty. A second fetus was delivered, both being about six months advanced. The patient died in apparent collapse on the day following her delivery.

Croom believes that the physiologic swelling of the thyroid in pregnancy seldom reaches the point of exophthalmic goiter or severe hyperthyroidism. It is his experience that most patients with exophthalmic goiter before conception are not made materially worse. Because many of the children born from these mothers are neuropathic, there is no indication in his mind for interruption of pregnancy, his view being very conservative. Resinelli reports five cases of hyperthyroidism complicating pregnancy, in all of which a marked increase in the severity of the symptoms was noted. He does not believe in Charcot's opinion that pregnancy sometimes improves these patients. Resinelli's technic includes a careful regulation of hygiene, the use of electricity and especially the Roentgen rays, and the administration of antithyroidin. If kidney failure supervene and the patient has reached the seventh month with a living fetus, prompt induction of labor is indicated.

Skutsch reports the case of a quartiparous woman who never had had marked thyroid trouble until her last pregnancy when exophthalmic goiter rapidly developed, the symptoms being relieved by large doses of bromid of sodium. Nutrition failed, however, and during the last weeks of pregnancy the patient lost strength and became melancholic, fearing death, as had occurred previously in a sister from exophthalmic goiter. Spontaneous labor developed with the expulsion of dead twins at about six months. Although there was little hemorrhage, on the following day the patient died after great restlessness and coma. Skutsch is not willing to concede that pregnancy in itself causes hyperthyroidism, and believes that individual cases vary greatly as to the development of dangerous symptoms. He thinks there is no question, however, but that metabolic disturbance caused by pregnancy is dangerous to a patient with active hyperthyroidism or a tendency thereto, and regards the great disturbance to the cardiac action as especially dangerous.

Massini, studying the influence of thyroid conditions on eclamptic convulsions, showed by experiments that while three-fourths of the gland may be safely removed in non-pregnant bitches, the same operation in pregnant bitches is followed by severe convulsions.

Ward has extensively reviewed the literature of thyroid conditions, and reports an interesting case of a primipara at the end of the third month. She had been married six years, had suffered two miscarriages, spontaneous, at the third and fourth weeks. Family history showed exophthalmic goiter, and the patient had had symptoms of the same lesion when 12 years old, but had been relieved by the use of cytotoxic serum and thyreoglobulin. The patient was decidedly nervous and restless with moderate hypertrophy of the thyroid, constipation and morning sickness, but seemed to be benefited by injections of thyreoglobulin until the end of the fifth month, when there was a diminution in the urinary output, and headache and vomiting became severe. Increase of thyreoglobulin acted at this time almost as a specific. During the seventh month the patient was very ill and suffered with exhaustion and greatly diminished nitrogenous excretion. It seemed impossible for the pregnancy to proceed and in the eighth month labor was induced by manual dilatation and bags. The dilatation being difficult, vaginal hysterotomy was performed with the ready delivery of a feeble child weighing 6 pounds. An adherent placenta was extracted and the patient rapidly recovered. The child lived thirty-six hours, dying from intracranial hemorrhage. Ward believes the saline extract of thyroid proteids made from fresh normal human glands is more efficient than sheep thyroids as ordinarily prepared, and he considers the hypodermic method superior to oral administration.

Seitz reviews the relation of the parathyroids to eclampsia, declaring that during pregnancy these structures become softened, more vascular and with chromophilic cellular increase. Eclampsia causes the cells to decrease or disappear with an increase in connective tissue and the development of fatty colloid material and cysts. Tuberculous infection has also been present in some cases. He thinks there is a decided difference between tetany in pregnant animals produced by partial or total parathyroidectomy and eclampsia, and does not believe that the extract of the parathyroids can be successfully used in eclampsia.

Stowe reports a fatal case of hyperthyroidism in a pregnant woman, the subject of a miliary tuberculosis. Bonnaire reports two cases of hyperthyroidism in pregnant women, the second one suffering from a severe post-partum hemorrhage and collapse from which she slowly recovered. Her hyperthyroidism remained, though less severe.

Goodall and Conn contribute a very interesting discussion on the relation of the thyroid gland to the female generative organs, and report a case of marked goiter associated with chronic pelvic tuberculosis. On the operative cure of her pelvic lesion the thyroid gland steadily decreased in size and became much smaller than normal. From their studies, Goodall and Conn conclude that the relation between the female genitals and the thyroid is very intimate and that the thyroid and ovaries mutually influence functional activities, thyroid secretion and ovarian secretion neutralizing each other, and the secretion from the excretory cells of the ovary apparently bringing the thyroid and the ovary into close relation. Ovarian hyperactivity is a frequent cause of exophthalmic goiter.

Porter reports two cases of hyperthyroidism in women, one relieved by the administration of thyroid extract and the other by injections of boiling water into the thyroid gland. He also reports the case of a patient with a marginal placenta prævia, delivered of a small poorly nourished dead child, but with insufficient uterine hemorrhage to account for the subsequent symptoms of a very rapid, weak pulse with air hunger on the day following delivery. Her history revealed several attacks of tachycardia throughout her pregnancy, and examination revealed a moderate enlargement of the thyroid. In another paper he gives the result of his treatment of hyperthyroidism by injections of boiling water into the gland for the purpose of stopping excessive activity of the gland, and later, on sufficient recovery, a removal of the gland by surgical procedure.

Davis says it is no unusual thing to find varying degrees of thyroid enlargement associated with functional disturbance of the genital organs in women, and further states that they have several times observed at the Jefferson Maternity patients with enlarged thyroids passing through labor with little disturbance either to the mother or child. He does report, however, from his private practice, four patients in whom thyroid disease with or without complications proved a critical factor in determining the life of mother and child. The interesting points in the first case were the insidious development of hyperthyroidism, apparently induced by two pregnancies, the first terminating prematurely after the patient had had sugar in the urine, with edema. The second pregnancy was characterized by excessive nervousness, increased amniotic liquid, slightly diminished development of the child, great excitement during labor, with hypersecretion of milk. Obstinate constipation was a factor causing straining, producing a downward displacement of the vaginal wall, for which she underwent operation at the hands of another physician which resulted in unconsciousness, delirium and death. During the latter months of her life the patient was practically a hysteromaniac.

The second patient had undergone one very prolonged and difficult labor and had been advised to have a section made in the event of a subsequent pregnancy. Her examination revealed a narrowed, flattened pelvis, slight enlargement of the thyroid, dating from the first pregnancy and never having disappeared. The early months of her second pregnancy were uneventful, but she gradually began to suffer from nausea, exhaustion and headache with deficient nitrogenous metabolism. Thyroid extract and rest produced some amelioration of symptoms but the thyroid gradually increased in size until it became the size of a small orange. The patient was allowed to go to term and was delivered by section a few days after entering the hospital. During the first twenty-four hours after operation patient was restless and exceedingly nervous. Six months after delivery the thyroid had increased distinctly in size, the general health was fairly good, and the patient was still nursing the child most of the time. Thyroidectomy was later performed and eighteen months after the delivery of the child both mother and child were in excellent health.

The third case was that of a woman who had been married twelve and a half years and was pregnant for the seventh time. The first four pregnancies had been accompanied by severe toxemia with abortion. The fifth went to term and patient was delivered by the application of high forceps of a female child weighing 7½ pounds which died twelve hours after birth from pressure. The sixth pregnancy terminated at about normal term in spontaneous labor, the child being an 8-pound male. He was allowed to nurse the mother, but did not discharge the contents of the bowel freely and died in twelve days with jaundice and intestinal disorder. The seventh pregnancy was accompanied by a toxemia with pathologic changes in the thyroid, this gland being larger than at any previous time. The patient and her husband being very desirous of a living child, the patient was advised to return home and remain under treatment at rest and not to submit to elective section because of the interference of the thyroid with the mechanism of labor through the prostration and suffering, but to submit to the surgical removal of the greater portion of the gland when convalescent from labor. Under a rigid régime and the administration of the

thyroid extract in varying doses, the patient improved markedly. Her improvement continued up until the ninth month when it was found that the breasts contained fluid and the head of the child had descended slightly into the upper pelvis, with the heart tones plainly heard on the left side anteriorly. At about 265 days, and because of the highly nervous and sleepless condition of the patient and the appearance of edema on the lower extremities, celiohysterotomy was performed, with the delivery of a well-developed male child by breech presentation. The child was allowed to nurse and lost considerably in weight after the first few days. One month after the operation mother and child left the hospital in good condition, the child weighing 10 pounds and 3 ounces. Three months after the operation the thyroid became larger, and the patient became highly nervous and apprehensive. During the last summer the right lobe and isthmus of the gland were enucleated by Dr. Charles Mayo, and the patient's general health has gradually improved.

The last patient of Dr. Davis' was that of a primipara who had previously had the greater portion of cystic ovaries removed and the round ligaments shortened. Sterile for many years. At the time of her examination the patient was between seven and eight months pregnant. Fetus living, pulse strong but irregular and with low tension. Food was assimilated with difficulty, and though the thyroid was not enlarged, the patient was evidently toxic. Five days afterward she expelled a premature female child weighing 2¾ pounds which lived forty-eight hours. Three years afterward the patient again presented with a history of headache, nervous exhaustion, astigmatism and loss of weight since her first labor. She was four months pregnant, suffered from polyuria and almost constant nausea. On a restricted diet, tonics and thyroid extract, 1 grain three times daily, the patient did very well for three months. Labor was spontaneous, the birth of a male child weighing between 7 and 8 pounds. The patient being anxious to nurse the child and having considerable secretion of milk which seemed to agree with the child, she was permitted to do so. During lactation several attacks of engorgement of the breasts with a rise of pulse and temperature occurred, but yielded to the use of calomel, thyroid extract and hot packs. Three months after delivery mother and child were in good general condition.

Davis concludes by drawing attention to the necessity for observing the thyroid in all cases of pregnancy, and if it is manifestly enlarged or altered the patient's nitrogenous metabolism should be watched closely, and in the event of lack of thyroid secretion the active principle of the glands in some available form should be administered. He prefers small doses, 1 grain three times daily, continued from four to seven months. He believes the nitrogen partition to be the most reliable index of the patient's condition. The wishes of the parents should always be ascertained regarding the life of the child and the situation explained clearly to them. With a history of loss of children in previous pregnancies, all possible means should be used to continue the pregnancy without undue risk to the mother, and if thyroid enlargement has taken place during labor previously with the development of unfavorable mechanism and loss of the child through birth pressure, elective cesarean section before labor should be selected. The induction of labor is too slow and uncertain. The thyroid should be watched for some time subsequent to delivery.

THE PHARMACIST AS THE PHYSICIAN'S MENTOR

The profession or the trade of pharmacy is supposed to act as the servant of medicine preparing its tools and presenting them ready for use. The camp-follower who would pick up the cast-off and rusty sword of the soldier and palm it off for new would deserve rebuke and chastisement, more especially so if he persisted in telling the soldier how to use it. So when pharmacists proffer worn-out remedies and useless formulas to physicians and insist on telling them how such formulas and remedies are to be used they deserve rebuke. The physician should bear in mind the pertinent fact that the druggist is essentially a tradesman and his commercial instincts are apt to lead him to lift up his voice and laud his wares in situations where modesty and professional comity should enjoin him to keep silence.

An example of this is found in the U. S. P. and N. F. Propaganda Department of the "N. A. R. D. Notes," April 4, 1912. This recommends to us the practically worthless preparation Elixir Corydalis Compositum, N. F., and proceeds to tell us what to use it for and how it may act. This is an aromatic elixir containing turkey corn, stillingia, prickly ash, blue flag and potassium iodid. It is claimed that the activity of each of these drugs is increased and the value of the elixir greatly enhanced, through being thus combined. With the assurance of matured wisdom this drug journal tells us:

"It is an efficient alterative of great value in favorably modifying the general morbid processes of certain constitutional diseases. Physicians ought to thoroughly acquaint themselves with this preparation for it is a remedy par-excellence.

"Its laxative properties, if not sufficient, may be enhanced by the addition of Cascara Sagrada or Podophyllin.

"This preparation has a decided tonic action in the third stage of syphilis, in chronic rheumatism, and is distinctly stimulating to the intestinal glands."

The spirit of perversity impels us to ask: How does this self-constituted instructor know these things? In these days when all statements are being put to the test and the opinions, which attributed the mysterious power of alteratives to such remedies as sarsaparilla, are dissolving like mist before the morning sun, it becomes the druggist to wait patiently for further knowledge rather than to confuse the issue by raising the old war cry. How happens it that the N. A. R. D. can tell us so confidently what years of investigation have not disclosed? The trained pharmacologist cannot discover the alterative or tonic properties of corydalis, or stillingia, prickly ash or blue flag. What does the retail druggist know about them that he should vaunt this mixture of cast-off herbs as "a remedy par-excellence"? Who is the physician so ignorant as not to know that he can supplement laxative action by another laxative if he wishes? Or was this lesson written at space rates and this statement thrown in to fill up?

But we forget the potassium iodid. Of course, the physician sometimes forgets potassium iodid to the great detriment of his patient. In the great emergencies when drugs must be used with a bold hand what is so likely to lead to failure as the fact that this life-saving agent is concealed in a mixture of worthless adjuvants? The doctor forgets what it is that will cure the disease because of the claims made for the other wonderful alteratives.

And now let us ask why all this laudation of a formula, the ingredients of which have been tried and found wanting? The answer readily occurs. Dollars and cents. Easy money. Were it not for support from trade interests such preparations as Elixir Corydalis Compound would sink from the weight of their own worthlessness into that limbo where repose such ancient and once honored remedies as the blood of the black cat, skunk's oil and the mold from worm-eaten skulls.

It is time to face the facts. The medical profession as represented by the American Medical Association with its ideals of public service, its ethical principles as to the exploitation of remedies, its progressive program in therapeutics, as voiced by the Council on Pharmacy and Chemistry stands on another plane from that occupied by trade organizations whose sole object is to advance the economic interests of their members. Unfortunately the drug business is a trade and a part of that commercial world whose warring interests necessitate that everything shall bow to so-called business principles. When the American Pharmaceutical Association provided us with the National Formulary, it did a meritorious act, and we physicians may gladly employ some of its formulas; but when the N. A. R. D. assumes to instruct the doctors which formulas they shall use and how they shall use them, it becomes an impertinence not to be tolerated.

It should be remembered that it is the druggist's interest to sell as many drugs as possible; it is the doctor's duty as well as his interest to cure his patient whether the drugs used be few or many. The trade has its rights as long as it keeps its place but in the struggle between various economic interests it should be kept in mind that the place of the doctor is on the side of the suffering public and of the individual patient who is his employer.

CAUSE AND EFFECT OF DECREASING AMERICAN BIRTH-RATE

There is no gainsaying the fact that the old-fashioned American mother, with her family of from six to twelve children is, in the light of modern times, becoming decidedly *de trop*. An interesting series of appeals and editorial comments on this subject appears in *Pediatrics* for April, 1912. The editor starts by outlining the attitude of the majority of American women of to-day as regarding maternity as undignified, a menace to a wife's liberty, and an unwelcome invocation of duty and responsibility, and calls attention to the prevalence of this unhealthy sentiment in both rural and metropolitan centers to the degree that the gynecologist is eagerly sought and implored to make an operation which will insure sterility, or if conception has occurred, then these women, devoid of moral obligation, seek and urge a physician to adopt some means of relieving them of the responsibility of motherhood.

While the individual woman is autocrat of her own decisions, yet on taking the vows of marriage, there go with such vows an injunction of motherhood, and the woman uniting herself in marriage to a man, then refusing to be mother to his

children in the absence of extenuating moral, physical or hereditary laws, has obtained a husband, a man to pay her bills, and to support and protect her through the subterfuge and methods of a common cheat. The man and woman unwilling to be father and mother to children are both unworthy of a place in society and should not marry.

The history of the great men and women of the United States demonstrates that they were all of large families and lived not in the constant thought of self but in the intermingling of thoughts, concessions, mutual considerations and sacrifices that go with large families. The United States is the greatest and most powerful republic the world has ever seen, because men and women during the past century married with the impulses to be fathers and mothers to boys and girls with no protest against Nature. Our early pioneers built a hut or house on the frontier and called it home, living within it with the holy reverence and love that such men and women give to the tabernacle in which their children are born. Then eight, ten or twelve children were common and oft repeated, while to-day two, three or five, and the latter decidedly infrequently, constitute the family. There is but one reason for this, and that is that the American woman has learned how to avoid maternity. The rich man's wife scorns to become a mother, leaving the responsibility of motherhood to her French maid, her Irish seamstress or her German washerwoman, and when their sons become noted men the American barren wife contemptuously remarks their humble origin. Such barren American wives, overwhelming in number as they are, make fit ciphers of society, and represent nothing but their husbands' ability to pay their bills. Perhaps it would be right to allow Nature to let such foolish, fanatic, self-sterile, selfish women end with their own death their unenviable heredity of mind. But such policy does not make for the welfare of true American ideals. The result can only be an overrunning of our country by the families of foreigners with their prejudices and reverence for foreign governments. We will be maintaining our American institutions for the benefit of the indigent, the ignorant, half barbarous foreigners who represent the scum and scourge of civilization and not the people who have inherited the wealth, morals, knowledge and advantages of American learning and civilization. Our race will become not the descendants of the founders and patriots of our country that we now regard as superior; and it is a delusive idea of a great many fashionable women, suffragettes and club friends, that if every family has two children the race will be maintained. On the contrary, every family must have an average of four children to maintain the human race because, alarming as it is, 20 per cent. of all infants born die before the end of the first year, and 50 per cent. die before the end of the fifth year; hence a family of less than four will not maintain the race. Health statistics go to show that American families in the cities show an average birth-rate of two and less, while the immigrants average from six to twelve.

Whenever and wherever the birth-rate of a people is declining, the population will be found straining every nerve to strengthen its economic basis, to have more comfort, wealth, enjoyment and especially to have a higher social standing. Such strenuous struggle for social prestige applies to all grades and classes of our population, each endeavoring to climb just one rung in the social ladder beyond their reach. Such struggle is a direct antagonism to the birth-rate. Card parties, afternoon teas, clubs and suffragette topics, not to speak of such minor things as dress and millinery, occupy the time and thought of the modern wife more than that of the function which she was ordained to fulfil, and such women usually make their choice and sacrifice the children for the things just mentioned. The French have afforded a striking parallel, and the calamity resulting to them is well known.

The American home, no longer a palace of love and a valley of peace, music and laughter, gives way to apartments for the successful American man and his wife in some fashionable hotel or boarding-house. In summer there is the trip for the wife to the mountains or seashore for a change of air, while the husband stays home and works for the money to pay his wife's summer bills, creating his pleasure with free thought and license. Every law of earth and heaven whispers maternity — creation. From time immemorial down to the present every religion has made motherhood divine, sacred. The Hebrews of to-day crown a mother with the glory of man's greatest honor, and the Catholic faith looks on motherhood as the divine blessing of God. Such family ties offer the solution for the wonderful prosperity and strength of the Hebrew race and the unending allegiance of all Catholic families in the midst of the greatest adversities.

The repudiation of maternity in a wife is the outcry of the selfishness of her own nature and heart. She wishes to receive all and give nothing, not even the nourishment of her own breast in payment for the smile of a babe, nestling in all the faith endowed by Providence. For a woman to delay the rearing of a family until later life is not only equally selfish but often ends in

disaster. It is well known that the children of mothers from 21 to 30 will be sturdiest and will make the best citizens morally, mentally and physically. After the age of 30 not only is the offspring less virile but conception is decidedly less frequent, and the woman who has postponed such event until ease of circumstances and environment are forthcoming is apt to meet the disappointment of a sterile life. Furthermore, the early rearing of families allows of a maximum number of years of companionship between parents and offspring, a condition of inestimable value and enjoyment to both parties.

The closing paragraphs and the remarks above mentioned relating to the woman who has declared that she wanted no children, are worthy of quotation: "The woman before or after marriage who makes such a statement must realize that she is untrue to every law of justice to herself physically, socially and the impulses of home and family, and untrue to the God who created her to be a mother.

"The woman who is a mother, whether she has one or ten children, in equal conditions of life and surroundings, is invariably a healthier, happier woman than the woman whose cry has been 'I want no children.'

"The woman with a large family may not have the amount of money nor the desire to lead a society woman's life, but she is always better contented with her life. The kisses of her sons and daughters are sweeter to her than all the operatic airs ever written or all the high teas ever given. American women must be mothers. Their dignity and honor plead it. Their old age beseeches it. The honor, strength and existence of the grand old Republic of the United States demand it."

EDITORIAL NOTES

The local committee on arrangements at Indianapolis has decided to make a change in the dates for this year's session of the Indiana State Medical Association, the session to be held October 10 and 11 instead of the last Thursday and Friday in September, as specified by the House of Delegates. Those who are planning to attend this year's session should note the change.

The present agitation concerning the teaching of sexual hygiene in our public schools seems destined to produce some results, as some of the more advanced high schools have already adopted education in sex matters as a part of the regular courses. This is a step in the right direction, for it must be admitted that the failure of parents to teach sexual hygiene is responsible not only for much of the ignorance that prevails among the growing youth of the country, but as a result of no knowledge, or at best knowledge that has been acquired from unreliable sources, for much harm that has been done in furthering the evils of sexual vice. There is absolutely no reason why the public schools should not take steps to remedy the existing state of affairs, and a proper appreciation of the necessities of the case will lead parents and guardians to approve of the plan that has been proposed and already adopted in certain localities.

The Journal of the American Medical Association is interested in the suppression of many medical abuses, and has had much to say about nostrum advertising in medical journals. The suggestion has been made that journals carrying nostrum advertising should be refused by all ethical physicians, which is all very well, but how about the men who are writing for nostrum journals? What about the presidents, ex-presidents and trustees of the A. M. A. who are contributing to nostrum journals, and by so doing creating a demand for such journals? We are too apt to jump on the little fellow and tell him to be good but make excuses for the big fellow who is really the more guilty of the two.

The Journal of the A. M. A. is the largest and the best medical journal in the world, and it is doing a commendable work in an endeavor to elevate the ethical and moral standards of the medical profession, but a little plain speech concerning some of the leaders in the A. M. A. would go a long way toward making the rank and file of the Association feel differently concerning this house-cleaning proposition.

When a firm of pharmaceutical chemists does not submit its products to the Council on Pharmacy and Chemistry for consideration there is a reason, and we can safely conclude that it is because the products cannot pass the Council. There are too many firms tinctured with just enough commercialism or dishonesty to permit of the manufacture of products along the lines that are approved by the Council because honest and free from misrepresentation and objectionable exploiting. A high standard of quality, efficiency, truth and ethical conduct in advertising is foreign to many manufacturers whose

commercial instincts and the desire for financial returns overbalance everything else. But the splendid work of the Council on Pharmacy and Chemistry in the effort to bring about reformation in the manufacturing and prescribing of pharmaceutical specialties is being recognized more and more as the only safeguard we have in bringing about a safer, and certainly a more honest condition of affairs. The medical men, individually and collectively, should actively support the work of the Council, and be guided by its findings, for at the present time it offers the only check on the wilful misrepresentation of the dishonest, and the unintentional misrepresentation on the part of those who have honestly but ignorantly been sponsors for deception. The manufacturers who intend to do right do not fear the work of the Council but are disposed to encourage it. It is easy to conclude from whom, and for what reason objection to the work of the Council is offered.

Treatment in Children's Diseases Two Hundred Years Ago.—Nothing will give a more realistic conception of the remarkable progress which has been made in medical science within the past 200 years than to peruse the medical works written from the middle to the end of the seventeenth century, and to study and compare the treatment in vogue then and now. At first sight we are apt to be overcome with the astonishment at what appears to us in these advanced days to have been the colossal ignorance of even the leading lights of the medical profession at that time, and are perhaps too liable to forget that for our present advantages we have to thank the labors of those strenuous workers who have made them possible and paved the way for the splendid discoveries of the century now passing by. Dr. Robert Reyburn, in the *Medical Record,* gives an interesting and amusing account of some of the methods of treatment followed and the remedies used in certain diseases of children in or about the year 1650. For instance, Dr. Thomas Willis, an eminent physician who wrote and flourished at that period, has this to say on the treatment of epilepsy: "A man in this neighborhood had all his children dead of convulsions within three months after they were born. At length to prevent the same fate in a son of his that was new born, he thought proper to try the power of medicine. I was called to him a few days after the birth, and ordered an issue in the first place to be made in his neck, and that 2 ounces of blood should be drawn next day at the neck by the application of leeches. I advised, besides, that for three days before each change of the moon, and again before the full, about 5 grams of the following powder should be given him morning and evening in a spoonful of the jalap: Take prepared human skull, the root of male-peony, of each 1 drachm, pearls in powder half a drachm, mix them all together and make a very fine powder. Take of black-cherry water 3 ounces, the antepileptic water of langins an ounce, syrup of the flowers of male-peony 6 drachms. I likewise ordered the nurse to take a draught of whey, in which the roots and seeds of male-peony and the leaves of lily of the valley had been boiled, twice every day at the same hours." The writer goes on to say that under this treatment, supplemented by blisters applied behind the ears, and another bleeding at the jugular with leeches the child was cured of epilepsy, although at the age of 7 years an indolent tumor arose at the lower part of the backbone occasioning a distortion of the vertebra and culminating in a palsy. The famous Thomas Sydenham, far ahead of his time as he was, recommended bleeding for children suffering from measles or small-pox, while the other medical writers of the time prescribed as drastic and nauseous remedies for infantile ailments as the before-mentioned Dr. Thomas Willis. Children living now have every reason to congratulate themselves on having been born when they were, although, as Dr. Reybourn remarks in concluding his article: "They must have been under better discipline than ours of the present day or they never could be induced to swallow such nauseous medicines."—*Pediatrics,* May, 1912.

Samuel Hopkins Adams, who wrote the series of articles concerning the patent medicine frauds and the swindling operations of quack doctors and drug habit sanatoriums which were published in book form under the title "The Great American Fraud," again is writing a similar series of articles for *Collier's Weekly.* In the issue of May 11 *Collier's Weekly* publishes one of the articles under the title "The Fraud Above the Law," in which Mr. Adams pays his respects to Swamp Root, exploited by the Kilmers, of Binghamton, N. Y. No attempt is made to handle the subject by inference or suggestion, but a straightforward attack is made by publishing reputed facts concerning the manner in which Swamp Root has been exploited by means of newspaper ownership, political influence and the effect that money has in bringing support to a nefarious business. Even the Post Office Department, the

Department of Justice and the Department of Agriculture (Bureau of Chemistry) of the government have been sidetracked in efforts to expose and put a stop to this glaring fraud.

Mr. Adams begins his article by saying that "many patent medicine frauds escape the law because of their inconspicuousness. Some more important nostrums evade the law by the skill of lawyers, the amiable interpretations of the courts or their own finesse in discovering loop-holes. One triumphantly overrides the law; that one is Swamp Root. It is the greatest, the most profitable, the most widely exploited, and on the whole the most profoundly and dangerously fraudulent of all the quack nostrums now conspicuously before the public." Due attention is called to the influence brought to bear on the public press by placing new contracts or cancelling old ones, and by so doing not only suppressing newspaper criticism but actually obtaining as a result of the advertising patronage the support of newspapers in preventing legislation inimical to the patent medicine interests.

In this fight for the suppression of the patent medicine and quack doctor swindles *Collier's Weekly* deserves unstinted praise. Of course any periodical which attacks frauds that are entrenched behind the support of newspapers and courts, because of the money spent directly and indirectly for protection, must of necessity reap a whirlwind of villification and abuse; but fortunately the owners of *Collier's Weekly* are also entrenched behind the support of several million readers who thoroughly approve of the fight for the right and appreciate the fearless manner in which *Collier's Weekly* is doing it. The effort that is being put forth will eventually awaken the public conscience to the fact that the frauds which are perpetuated through the aid of the public press must be suppressed, and some day there will be a demand for cleaner advertising and freedom from misrepresentation or newspapers and other periodicals carrying such advertising will be minus subscribers and denied the use of the mails.

Mr. Adams strikes the key note when in closing his article on "The Fraud Above the Law" he says: "The way to end Swamp Root's career of fraud is to spread understanding of what it really is, a compound of false promises and harmful drugs protected by political pull and backed up by a conscienceless newspaper, in all the realm of medical knavery the most dangerous and law-destroying extant, the copartnership of quackery, blood money and fraud-nurtured journalism."

In the present-day treatment of pulmonary tuberculosis, there arise many questions of fine detail, and yet they are of vital importance in the welfare of every individual sufferer from this disease. *The Journal of the American Medical Association* of June 1, 1912, contains a most interesting article by Lawrason Brown on the recent advances in the treatment of pulmonary tuberculosis by air, food and rest. We all know that there have been those who declare that the air of a room in which the windows have been removed from the casings is in every way the equivalent of outdoor sleeping. There are also those who advocate the window tent, maintaining that it is quite sufficient for the patient to sleep with his head out of the window. Dr. Brown does not believe that the full value of outdoor air is obtained without having the full air bath any more than the full effect of the cold bath in typhoid fever is obtained by spraying the upper part of the trunk with cold water. Between the back yard and the roof, he chooses the roof always because of the lessened contamination of the higher stratum of air, both by dust and bacteria. Likewise is it cooler, and there is also more motion. On the last-named point great emphasis is laid, it having been proved that the hardiest races are those in which there is the greatest diurnal variation in temperature. For vigorous patients, the author says sudden changes act like a tonic and are to be desired when intelligently made.

The question of food is a most important and most difficult one. For years we have been preaching superalimentation and have crowded our patients with milk and eggs *ad nauseam*. There is no question but that this overcrowding has at times been a potent factor in the gastric upheavals of tuberculous patients, and Dr. Brown likens the process to a gasoline engine on the road which is given too much gasoline, with incomplete combustion, the spark plugs becoming dirty, the cylinders coated with carbon, and the efficiency of the machine greatly reduced. In other words, the patient should be given just enough food to produce the desired result without the addition of any extra burden on the digestive tract, and for the government of such quantities the scales are the best criterion.

One should be satisfied with a gain of a pound a week and a good digestion. When the required weight is attained, the diet should be reduced to the lowest point which will give satsifaction at the table and sustain the weight.

The questions of rest and exercise are equally important, and often of no less difficulty of solution. Here there are those who advocate exer-

cise for the purpose of auto-inoculation, and those who maintain that such auto-inoculation should be avoided by prolonged rest in bed. Dr. Brown says that generally speaking the weight, temperature and pulse should be normal before any exercise is permitted. While often tempted to push the process of auto-inoculation in the more vigorous patients, yet conservatism must reign, and such process must take place only under the guidance of the most skilful. So essential does Dr. Brown consider rest in bed in all early cases, as well as for any patient who is not doing well, that he ends his article with the following dictum: "Had I to begin treatment to-day for tuberculosis, knowing what I do, however little it may be, I would go to bed and remain there for two months, whether symptoms were present or absent. Such, I feel, is the importance of rest at the beginning of treatment."

NEWS, NOTES AND COMMENTS

Dr. F. T. O'Leary, Logansport, sailed for Europe May 8.

Dr. B. W. Egan of Flora is taking postgraduate work in Chicago.

The Fourth District Medical Society met at North Vernon, May 23.

Dr. J. C. Carson and wife of Valparaiso are spending three months on the Pacific coast.

For particulars concerning a second-hand static machine in good condition, see advertising page 19.

Drs. J. H. Ford and Moses Thorner have been appointed members of the Indianapolis Board of Health.

Dr. H. H. Elliott, Glenwood, has sold his home and announces his intention of retiring from practice.

The Hamilton County Hospital, of Noblesville, and the Fairview Hospital, of Kendallville, have recently filed articles of incorporation with the secretary of state.

The thirty-ninth annual meeting of the Northern Tri-State Medical Association will be held at Detroit, July, 1912.

Dr. John Ellsworth Taylor, Leopold, and Miss Katherine Burke, of Boonville, were united in marriage April 17.

Dr. A. P. Buchman, Fort Wayne, has retired and has gone to Des Moines, Iowa, to make his home with his daughter.

Dr. John W. Sluss, Indianapolis, candidate for a position on the City Board of Health, has announced the withdrawal of his name.

Dr. J. McLean Moulder, formerly of Kokomo, has been appointed superintendent of the Methodist Episcopal Hospital, Indianapolis.

The annual reception tendered by Fletcher Sanatorium to the senior class of the Indiana University School of Medicine was given on the evening of May 18, at the Sanatorium, 1140 East Market Street, Indianapolis.

Dr. H. P. Franks of Muncie was the victim of a murderous assault from a supposedly insane man, May 7. Several shots were fired at Dr. Franks, but the man was taken into custody before any wounds were inflicted.

Governor Marshall delivered the address to the graduating class of the Nurses' Training School of the Deaconess Hospital at the commencement exercises held at the Nurses' Home on North Senate Avenue, Indianapolis.

The Twelfth Annual Commencement of the School of Nursing of Hope Hospital, Fort Wayne, was held Monday evening, June 10, in the High School Auditorium. Dr. Charles P. Emerson presented the address of the evening.

The Samaritan Hospital, at Ashland, Ohio, was dedicated May 28. The hospital is a gift from Jesse Lewis Clark, one of Ashland's prominent citizens. Dr. W. N. Wishard, of Indianapolis, presented an address on the subject "The Purpose of the Hospital and Its Benefits to the Community."

Dr. Lyman T. Rawles, formerly of Huntertown, announces the removal of his office to 118 West Berry Street, Fort Wayne.

Dr. J. L. Freeland, superintendent of the City Hospital, Indianapolis, has resigned, the resignation to take effect July 15.

The annual state conference of charities and correction will be held in Logansport in October of this year. One of the enjoyable features of the conference is to be an entertainment and reception at the Northern Indiana Hospital for the Insane. The different buildings and wards will be visited.

Ralph M. Funkhouser, A. V. Hines and W. F. Hickman, members of the senior class of the Indiana University School of Medicine, have been appointed interns at St. Vincent's infirmary. They will be graduated from the medical college in June and each will serve in the infirmary for a period of one year.

The State Board of Medical Registration and Examination recently passed resolutions providing that a woman physician in Indiana who has been licensed under her maiden name may not legally practice under the name of her husband until after taking the matter up with the board and having the original license modified to correspond with the new name.

Since May 1 the following articles have been accepted for inclusion with New and Nonofficial Remedies:

Cresatin (Schieffelin & Co.).

Bismuth Betanaphtholate (H. K. Mulford Co.).

Cholera Bacterin (H. K. Mulford Co.).

Typho-Bacterin, Mixed, (H. K. Mulford Co.).

At the meeting of the Medical Section on the evening of May 13, 1912, Dr. G. W. McCaskey of Fort Wayne, Ind., read a paper entitled "Some Observations on Pernicious Anemia." The paper was of the highest possible interest, and we are indeed debtors to Dr. McCaskey for his effort in our behalf.

Preceding the lecture a complimentary dinner was tendered to Dr. McCaskey by Dr. E. W. Haass at the Medical Building.—*The Wayne County (Detroit) Medical Society Weekly.*

DEATHS

Mrs. Sarah Bird, wife of Dr. M. A. Bird of Anderson, died, May 22, at the age of 56 years.

Dr. William A. Jamison, aged 72, died at the home of his daughter in Lawrenceburg, May 17.

Dr. Samuel C. Rogers of Darlington died at his home, May 28, from a complication of diseases. He was born in 1856.

Mrs. Maria Jane Ried, widow of the late Dr. Samuel N. Ried of Muncie, died at her home May 31 after an extended illness from dropsy, aged 66.

Dr. James T. Boyd, probably the oldest homeopathic physician in Indiana, died May 21 at his home in Indianapolis. Dr. Boyd was born at Albany, N. Y., in 1823. He was a graduate from the Ohio Medical College, Cincinnati, and the Starling Medical College, Columbus.

Dr. Franklin T. Cosgrove, graduate of the Medical College of Ohio, Cincinnati, 1849; a veteran of both the Mexican and Civil wars, and until his retirement a practitioner of Maysville, Ind., died at the home of his son near North Vernon, April 12, from senile debility, aged 85.

Dr. Obadiah S. Brown, one of Indiana's pioneer physicians, died May 10 at his home near Fortville, aged 90 years. He was born in Fayette County. Dr. Brown practiced medicine for many years in Indianapolis, and moved to Fortville thirty or forty years ago. He had been living on a farm and had not been practicing medicine in recent years.

Dr. Jonathan Clark of Economy died at his home, March 21, after a long illness, at 76 years of age. Dr. Clark was a graduate of the University of Pennsylvania. He had been active in the Wayne County Medical Society, and had served in the capacity of president for several years. He had practiced at Economy since 22 years of age, and had been a member of the pension medical examination board of the county for years.

The Loyal Order of Cubs has reduced the salary of their lodge physicians on the grounds that they are not worth the money.

While out making a 75-cent insurance examination last week, Dr. Foreus Hasty fell and broke his ankle. It will be some time before he will return to his work, and in the meantime the insurance company has appointed a new examiner.

Dr. Amos Tardy, of Stop 9, whose automobile was stolen recently, has placed a personal notice in the county paper saying that the guilty party is welcome to the machine, and if a return call be made some dark night the thief may also have a 5-gallon can of lubricating oil which Doc will leave out in some convenient place.

When we see a nurse stricken with tuberculosis or a doctor desperately ill as a result of disease incurred while fighting to save the life of another, we sometimes question whether these things are right. Then it seems as if the Immortal Being were ruling with an unkind hand and rebuking our slight efforts to imitate the Great Physician. But it serves to bring us back to sober thought and the knowledge that we are frail mortals delving into and frequently solving problems which secretive Nature has placed centuries-old obstacles in front of, not meaning us to know all.

The Indiana Veterinary Medical Association in their meeting of January 11 adopted a resolution condemning the sale of proprietary medicinal preparations for the prevention and treatment of hog cholera and called on the state to exercise control over the sale of such preparations. This is real progress for the hog, and hogs represent dollars. They continue to receive more protection than human beings. What value are we placing on the children that no official words of condemnation are carried to the state regarding the annual slaughter of the innocents by the patent medicines?

We note with increasing pleasure the fine articles appearing under the names of brainy medical men, which have lately appeared in some of our Sunday newspapers. Now and then an occasional osteopathic knock column slips in under that time-worn plea of medical freedom, but there must be chaff in the wheat and this is easily separated. Dr. Hurty and Dr. C. S. Woods are contributing excellent ideas on hygiene and sanitation and no finer use could be put to these notes than to give them the wide publication they deserve. The newspapers are lucky to get these excellent papers.

There seems to be no limit to the promises of some of the so-called "doctors of refraction" and "eyesight specialists" who sell glasses to the "easy" unsuspecting public. Graduates from optical schools in about six weeks, they fill the papers with yellow scareheads attributing anything from headache to bleeding hemorrhoids as due to faulty vision. Legally such men cannot use drugs, so an exact measurement cannot be obtained when a drug such as atropin is needed to put the eye at rest so that the static refraction may be determined. Much has been said on this subject, but little is being done to correct these abuses. These fellows have no moral right to the name "doctor" which seems to be assumed after their six weeks' training.

Breathes there a Doc with soul so dead, who never to himself hath said: "Dadburn it all! From this time on, I'll make no calls without the Spon? My ancient hoss I'll give a rest, unless I am with fees more blest. This thing of getting up at night, and riding miles to some poor Blight, without a cent to buy the feed consumed alone by my old steed, gives me a Pain.

"For years I've pandered to the whims, of half a thousand or more Slim Jims; Neglected my wife and missed by the kids, getting my fees in only small dribs. From now on my work will be wholly cash, and I'm through with the helping of poor white Trash." . . .

But at 2 a. m. the door-bell sounds, and you're out on your feet in a couple of bounds. "Hurry up, Doc. It's pneumonia, I guess. Move up

quick if you've got to dress. I haven't the money, but I'll pay you soon — I've got some coming the first of June." You console the fellow the while you dress. The fee? Oh no, you cannot press. His wife is ill, and he's come to you, for help in his need — your friendship's true.

Your warm home you leave and clatter away, and when you return it is light and broad day. You have shunted the hand of the Reaper aside; Man's skill and worth have been met and tried. You may get your pay, and again you may not, but just at the present it's far from your thought. Poor Doc! you are richer than thousands of men who figure their worth in bank books with a pen.

SOCIETY PROCEEDINGS

INDIANAPOLIS MEDICAL SOCIETY

Meeting of April 30

Society called to order at 8:30 by president with 46 members present. Dr. Howat, president of the state association was also present. Minutes of last meeting read and approved.

Dr. John Sluss read the paper of the evening on "Bone Infections," saying in part that too many bone infections are ascribed to tubercle bacillus. Time element of no value in diagnosis as acute process may be tubercular and chronic due to other bacteria. Therapeusis depends upon nature of infective agent. In a general way pathological processes similar in all infections, and variations are explained by embryology, histology and blood supply, which the author reviewed. Bone is essentially a connective tissue developing from the mesoblast; bone cells being modified mesoblastic cells which at first lie in a fibrillate matrix. Through cell activity mineral substances are deposited in the fibers, and bone cells are thus formed, which retain their connective tissue by means of branching processes occupying the canaliculi. Noteworthy fact about nature of bone cells is their loss of power to multiply, so that growth of bone is arranged for in the osteoblasts which are capable of very rapid multiplication, and form the deeper layer of the periosteum, the covering of the marrow and lining of Haversian canals. These three sets are capable of forming new bone, but by far the most active are the periosteal osteoblasts; hence the great importance of periosteum in bone surgery.

Bone marrow is made up of a great variety of cells, all derived from primitive mesoblast, retaining their kinships with those which give rise originally to circulatory system and circulating medium. In the long bones many of these cells undergo fatty degeneration, more marked as age advances, this change giving the yellow marrow its special characteristics and determining location of certain infections by reason of affinity or selective action. These marrow cells are not only phagocytic but more active than any others in formation of antibodies. Blood-vessel arrangement explains location of other infective processes; periosteal derived from adjacent tissues; metaphyseal likewise; nutrient pierces shaft as a single artery to supply medulla; epiphyseal from blood-supply of joint. No free anastomosis between these different sets especially in growing bone. The nutrient particularly at fault because terminating as end arteries in growing end of shaft, in other words in the metaphysis, the area in which cartilage cells of epiphysis are undergoing their metamorphosis into bone cells. The numerous capillary loops, slowed blood current, lowered resistance of changing cells, together with the mode of growth of tubercle bacillus and staphylococcus explain the greater frequency of their development in the ends of long bones. By this mode of investigation the favorite locations of other bacteria can be determined, with subsequent local changes and constitutional effects. In effect every bone inflammation is an osteomyelitis, though clinically speaking the infective processes are termed periostitis and myelitis, depending on which structure is principally involved. Simple suppurative periostitis is cured by incision of periosteum; beyond three days the marrow is invaded, as a rule, and the bone must be opened and infected marrow evacuated. Process of repair favored by turning edges of periosteum down into bone cavity. Bone transplantation in the worst cases. Vaccines of great value in controlling infection.

DISCUSSION

Dr. Jobes: Early diagnosis and drainage have been feature of recent investigation of bone disease. If disease is in neck of femur, drainage is done through great trochanter. Beck asserts that openings into medullary canal are usually too abrupt. Periosteum should be preserved to cover defects since it is chief agent in restoring destroyed bone.

Dr. Ross: Time important in treating bone disease. Rapid destruction of bone must result from infection that cannot find an outlet. Repair bound to be limited and drainage should be done early since great damage can be done in a few hours.

Dr. Howat. Vaccine therapy properly emphasized. Autogenous vaccines not always necessary since good results can be obtained by use of stock vaccines.

Dr. Hadley: Ordinary bone infections usually metastatic unless traumatic. Intestinal and respiratory tracts sources of infection; history will often reveal source. Tuberculous infections usually take place in epiphysis and other infections in diaphysis. Early drainage necessary, particularly in pus infections. Later treatment important. Subperiosteal resection advocated by Nichol.

Dr. T. C. Kennedy: Inquired as to use of decalcified bone chips. A case was reported in which good results followed use of the chips.

Dr. Dodds: Pharmaceutical houses advocate use of mixed vaccines which are shot-gun mixtures. Bacteria vary greatly as to degree of toxicity and consequently stock vaccine not so valuable as autogenous; age deteriorates vaccine. Best results obtained from fresh autogenous vaccines.

Dr. Reed: Chronic bone disease not necessarily tuberculous; luetic and typhoid infections liable to be chronic. History important. Wassermann test should be made in all cases of chronic bone infection.

Dr. Brayton: A case of chronic bone infection which gave positive Wassermann did not improve under antisyphilitic treatment and finally proved to be osteomyelitis. Wassermann test valuable in diagnosis in obscure cases.

Dr. Wynn: Bone syphilis cannot always be recognized. Hypertrophic and destructive processes are coincident. Reported a case thought to be tuberculous which proved to be luetic. Wassermann valuable in early infection and luetin test valuable in late manifestations.

Dr. Sluss, closing: Tuberculous infection does not begin in epiphysis but on account of arrangement of vessels usually begins in metaphysis. The purpose of filling in a cavity in a bone is to furnish a frame work for the osteoblasts.

Dr. Wynn announced that date of State Health Conference had been changed to May 21-22.

Adjourned. Homer R. McKinstray, Secretary.

Meeting of May 7

Society called to order at 8:30, with 52 members present. Minutes of last meeting read and approved. Secretary brought up for discussion the movement of the Business Men's Association to bring about legislation in the way of a garnishee law. After discussion society voted to indorse the movement.

Program consisted of case presentations.

Dr. David Ross presented a brace for dressing fractures of the clavicle; brace consisted of an arch in front, the ends of which rested on the clavicle. Straps went about the shoulders and were connected on the back by another strap which drew the shoulders back. Pressure was made at point of fracture and shoulders pulled back by apparatus. A demonstration was made.

Dr. Padgett reported a case of gun-shot wound perforating abdominal viscera. Patient colored, aged 28. Two wounds of thorax. Extreme shock. Abdomen distended with evidence of hemorrhage. Right rectus incision. Perforations of liver, stomach, intestines and omentum. Liver wound repaired by sutures extending through thickness of organ. Wounds of stomach and intestines closed by purse-string and mattress sutures. Hemorrhage continued and search disclosed wound of spleen which was closed. Drainage and proctoclysis by Murphy method. Nutrition per rectum. Some infection and a fistula formed which closed on nineteenth day. Good recovery.

Dr. Dodds presented a clinical thermometer used in a London hospital early in nineteenth century. A stethoscope was also presented, made of rose-wood and ivory; used about the same period as the thermometer. Consisted of a straight tube with broad base to be applied to chest, and an ear piece at other end.

Dr. Sharp reported case of double cataract of two years' standing with degeneration. Tension reduced, but light perception good. Operation done with good results. Second case, a boy aged 9, with swelling and edema of eye-lids on first examination; later glandular involvement, with a papule on conjunctiva. Diagnosis Parinaud's conjunctivitis. Recovery under boric acid irrigations and argyrol.

Dr. O. G. Pfaff reported three cases of Cesarean section, the first in a dwarf, aged 17, and 33 inches in height. Anterior-posterior diameter at brim was two inches. Convulsions previous to operation. Mother recovered but child died from inanition. Case 2. Eclamptic patient who had been given chloroform for four hours. Hasty operation done on account of condition of patient. Baby lived only a few minutes. Case 3. An occiput posterior presentation. Uneventful recovery of mother and child.

Dr. Theodore Potter reported a case of acute articular rheumatism with an unusual series of cardiac and pulmonary complications. Patient man, aged 30, weight 200 pounds. After exposure in March, 1911, developed acute articular rheumatism of moderate severity involving ankles, knee, elbows and shoulder. On sixth day pericarditis; on eighth day pneumonia in left lower lobe; on ninth day pneumonia in right lower lobe. By twentieth day double pleural and pericardial effusion. Aspiration of right pleural cavity on twenty-first day, 1½ pints; on twenty-second day aspiration of right pleural cavity, 25 ounces, and on thirty-first day aspiration of left pleural cavity, 3 pints, and of pericardium 1 pint. All fluids were serous and sputum examination negative for tubercle bacilli. During this time arthritis varied with dosage of salicylates, which were reduced during periods of greatest cardiac and pulmonary distress but finally cleared up, and by early June patient was fully convalescent. Heart, lungs and pleura were clear. Von Pirquet negative. Patient now fully recovered health and normal weight of 200 pounds.

DISCUSSION

Dr. Fletcher Hodges reported a Cesarean section in a rachitic dwarf with a conjugate of 2½ inches.

Dr. Jackson: Cesarean section has become a common operation. The patient operated by Dr. Davis, of New York, the fifth time was mentioned.

Dr. Ferguson: Chloroform in eclampsia is dangerous since the changes due to chloroform poisoning are similar to the pathological changes in eclampsia.

Dr. Allen congratulated Dr. Ross on the presentation of his new brace, since it does away with plaster of Paris; shoulder does not need to be pulled back. A fulcrum in the axilla with humerus as a lever gives best results. The figure eight bandage with Dr. Ross' brace pulls shoulder in.

Dr. Morris: Restoration of function in treating fractures of clavicle is what is desired. Muscular action holds shoulder back and clavicles follow. Shoulder should be pulled up and back in fractures of clavicle.

Dr. Sluss: Muscular action causes the deformity in fracture of clavicle.

Dr. Guedel reported a case treated by Dr. Ross' apparatus with good results.

Dr. Caraway: Dr. Ross' apparatus allows free movement of arms which is important in children.

Dr. Henry and Dr. Dodds each reported cases of fracture of clavicle treated with Dr. Ross' apparatus, followed by good results.

Dr. Ross: Pulling shoulder back lengthens clavicle. If clavicle is in normal position the treatment with a fulcrum in the axilla would be sufficient.

Dr. Noble inquired as to method used to sterilize skin before doing a paracentesis of the thorax. Formerly soap and water considered good cleansing. Mentioned use of iodine.

Dr. Erdman: Water, alcohol, iodin and then alcohol is method used preceding administration of salvarsan.

Adjourned. Homer R. McKinstray, Secretary.

Meeting of May 14

Meeting called to order at 8:30, with 54 members present. Dr. Graham reported for committee on arrangements for the meeting of the State Association. Meeting to be held at Claypool Hotel, October 10 and 11. Society voted to make executive committee members of committee on arrangements.

Dr. John Morris exhibited some dissections of shoulder. Joint cavity and sub-deltoid bursa injected with wax and differential diagnosis of inflammatory troubles in these cavities explained. A dislocation was produced and methods of reduction demonstrated from anatomical standpoint. Fracture of glenoid cavity, caused by same force that causes a dislocation, was

demonstrated. The various structures about the joint and their applied anatomy were explained.

Dr. C. D. Humes read a paper on "Traumatic Concussion." In part Dr. Humes said that concussion is a momentary application of pressure to a soft fluid or semi-fluid body; defining traumatic as a term meant to imply damage to tissue resulting from concussion. Effect best marked in brain and in hollow viscera having gaseous or fluid contents, as in lungs, urinary and gall-bladder and stomach. Contra coup explained by law of solid bodies partaking more of the motion imparted to cavity wall than the more fluid contents. Main object of paper and cases reported is to emphasize importance of any and all injuries which cause interrupted consciousness, whether there is local injury or not.

In considering individual susceptibility to vascular insult, constitutional diseases such as lues and tuberculosis, and physiological disturbance of alcohol must be kept in mind as determining factors in diagnosis and prognosis.

Case 1.—Boy, aged 18; rendered unconscious by fall one month before entrance to Norways. Dazed 24 hours but seemed to recover completely. Two hours later restless and ill tempered. Mental disturbance increased, and death in one month. Later part of illness was a clear cut case of cerebritis. Post-mortem refused. General favorable history and no apparent marks of injury, yet there was a development of all the symptoms of cerebritis.

Case 2.—Man aged 28, weight 185 pounds; history negative. Injured by being thrown from automobile, and sustaining minor injury to knee. Unconsciousness followed, which cleared up in six weeks. Mild mental dulness continues but does not interfere with business affairs. Very slight temperature; no marked central nervous displays except of higher functions referred to. Diagnosis: Concussion (momentum injury) pial hemorrhage general.

Case 3.—Man aged 37, family history good. Hemophiliac and alcoholic. Injured cranking engine; immediately showed ecchymosis over frontal region. Some pain at intervals for several weeks, but not confined except for unsightly ecchymosis. Wife reported gradual quieting of patient and a peculiar expression at times. Attended to business for three weeks. A few days later found in stupor. Examination showed right-sided convulsions; death in a few days. Post-mortem showed bruises of skin which was unbroken. Large well-formed clot extending over left frontal lobe encroaching backward upon motor area of that side and filling a laceration in frontal lobe. Diagnosis: Cerebral hemorrhage. Note long period between date of injury and death—at least four weeks—this is particularly strange in a hemophiliac.

Case 4.—Baby, 4 years old. At age of 3 months had a toxic neuritis. At 18 months fell heavily on right side of head. Cried, ate and slept afterwards, and in an hour became nauseated and fretful; hemiplegia noted. Jacksonian convulsions appeared in eight months; operation advised and refused. Jacksonian type lost in general type. Operation advised guardedly. Large cyst of left motor area independent of ventricle. Brain coverings chronically inflammed and thickened. Subsequent relief from convulsions but motor speech and mentality below par.

Cases 1, 2 and 4 show that profound damage can result without apparent localization of force. Case 3 shows that a dangerous bleeder may have delayed symptoms, and that Nature can hold in check a severe hemorrhage. Emphasis made of necessity for absolute rest in all cases where consciousness has been disturbed to any degree from injury.

DISCUSSION

Dr. N. E. Jobes: Writers disagree as to effect of abduction and rotation in production of a dislocation at shoulder. Classification best made on a basis of pathology. Complicating paralysis of deltoid may be incomplete. Subdeltoid bursitis a frequent cause of disability. Condition frequent in baseball pitchers.

Diagnosis of conditions resulting from cranial injuries is difficult. Lines between concussion, contusion and compression are not well drawn clinically. Contusion usually causes some degree of compression. Pathology due to concussion not definite. Shock may be a factor. In one case all conditions may be present.

Dr. Gatch: Codman's subdeltoid bursitis a common condition and well demonstrated. Operation in four cases reported. One case calcareous. Inability to abduct and rotate arm are classical symptoms. The Codman splint fixes arm at right angles to body; its use not satisfactory. Stimpson's method of reduction of a dislocation of upper end of humerus is better than that of Kocher. Delayed hemorrhage after trauma unusual.

Dr. Oliver: Ordinary dislocation of shoulder is easily reduced by manipulation. Dislocations of hip may be reduced by traction in flexion. Old method of reducing dislocation of shoulder by traction and pressure in axilla is practically same as Stimpson's. Atrophy of deltoid liable to occur. Dislocation always complete. Case of posterior dislocation reported. Fracture of humerus less serious than dislocations as far as consequences are concerned.

Patients usually have evidences of compression after cranial injury. Lumbar puncture valuable. Conservatism indicated in treatment where fracture is not present.

Dr. Allen: Fixation of scapula important in reduction of dislocation at shoulder.

Dr. Sterne: Character of cranial traumatism should be differentiated. Injuries of impact and momentum cause different results. Injury to brain by momentum may be present without any direct injury. Slight immediate effect may be followed by serious later effects. Case reported of slight injury, none to head, resulting in death. Post-mortem showed extensive laceration of brain. Dr. Humes' third case, in which there was slight injury, showed hemorrhage, laceration and meningitis. Prognosis in any case of cranial injury should be guarded, since late effects cannot be determined.

Dr. Neu: Prognosis in injuries about shoulder should be guarded as paralysis may occur. In cases of cranial injury there is no way to tell amount of damage done to brain. Case reported which seemed to be alcoholic delirium, but proved to be extensive hemorrhage. Patients should be kept very quiet until all evidences of injury have disappeared. The term concussion has not been used since a diagnosis of the condition can be made only by comparison. Remote effects more liable to occur in cases of lues, alcoholism and tuberculosis.

Dr. Sluss: The Kocher method of reduction of dislocation of humerus is best but may fail because arm is not carried back to relax triceps.

Dr. Morris, in closing: Applied anatomy is of use in all conditions. Effect of muscles about a joint is im-

portant. Abduction of humerus depends on muscles attached to scapula.

Dr. Humes, closing: Contusion cannot be determined except at autopsy. Lumbar puncture cannot be used in cases requiring an anesthetic.

Adjourned. Homer R. McKinstray, Secretary.

Meeting of May 21

Society called to order at 8:30 with 45 members present. Minutes of last meeting read and approved.

Dr. F. O. Dorsey presented a case of straw itch. Patient one of a family all of whom were affected since sleeping on straw beds. Large, highly inflamed papules covered entire body; itching intolerable. Mite was demonstrated by Dr. Shimer. Dr. Dorsey discussed condition in general way.

Dr. J. V. Reed read the paper of the evening on "The Diagnosis of 'Indigestion.'" Chrome indigestion is a symptom pointing to grave abnormality either in the stomach or in some other region of the body. A patient with indigestion as the chief complaint should be subjected to a searching inquiry and a complete examination. Four cases of gastric ulcer, cases of gastric carcinoma, gall-stones and chronic appendicitis in which chronic indigestion was the chief symptom, were reported.

DISCUSSION

Dr. A. B. Graham: Cases of indigestion with pain limit the field to surgery. Other cases without pain may be medical ones. The following were reported:

Case 1.—Woman, 54, loss of 50 pounds in weight; no free hydrochloric acid, no tumor or cachexia. First seen one year ago; recently saw patient who was then seriously ill. Operation revealed benign growth the removal of which restored health.

Case 2.—Diagnosed gastric ulcer. Operation failed to show ulcer though symptoms were classical.

Case 3.—Acute indigestion due to cholecystitis.

Case 4.—Patient with gastric symptoms due to a probable metastatic malignant disease. Gastric analysis very essential in making diagnosis. Hyperchlorhydria, if not gastric ulcer, may be a forerunner of it. In chronic indigestion there is usually some cause removed from the stomach.

Dr. C. P. Emerson: Gould's work in treating indigestion by attention to correction of refractive errors was mentioned. Indigestion has been ascribed to all sorts of reflex causes. Stomach gives first symptom of numerous abdominal conditions. Indigestion or pain in region of stomach means nothing unless their relation to other organs is explained. Stomach is the fire alarm of the body. Cases with stomach symptoms usually not medical cases. Surgeons have overstepped the bounds. Ordinary case treated surgically might have good results if given rest in bed, attention to diet and relief from constipation with the added suggestion afforded by operation.

Dr. Kimberlin: Many stomach symptoms cannot be explained on any basis. Gastric analysis outside of determining position and degree of dilatation is of no value unless the finding is extreme. Exploratory operation may fail to show any pathology. Surgeon and internist need to work together.

Dr. Noble: Many patients have stomach symptoms with no definite pathology, and these are very difficult to diagnose. History must be very complete. An insignificant factor may be the whole cause. Reported a case thought to be a neurotic who had carcinoma. Another case operated for ulcer which could not be demonstrated. Operation should not be done unless pathology is definite.

Dr. Brayton: Schamberg has credit for first describing straw itch. Small-pox, chicken-pox, or urticaria may be confused with condition. A toxemia is present and there may be albuminuria. Not contagious.

Dr. Lapenta: The methylene-blue capsule is useful in determining gastric digestion when hydrochloric acid is present. In chronic cases of indigestion physicians are liable not to make careful examinations. Careful study will eliminate the neurotic cases.

Adjourned. Homer R. McKinstray, Secretary.

EIGHTH DISTRICT

The Eighth District Medical Society met at Anderson, May 9. The morning session, after appointment of committees, was devoted to diagnostic clinics. Dr. Julius H. Hess, of Chicago, conducted a clinic in diseases of children. At the same time Dr. Frank Smithies, of Rochester, Minn., conducted a clinic on Diseases of the Gastro-Intestinal Tract. A banquet was served at 12:30.

The afternoon session opened at 2 p. m. The following papers were presented: "Autogenous Vaccines," Dr. G. W. McCaskey, Fort Wayne; "Blood-Pressure in Disease," Dr. C. S. Bond, Richmond; "Facts and Fancies in the Treatment of the Gastro-Intestinal Tract of Infants," Dr. J. H. Hess, Chicago; "Laboratory Method for Every-Day Use in Diagnosis," Dr. J. P. Simonds, Indianapolis; "Thyroid Medication," Dr. Chas. P. Emerson, Indianapolis; "The Stomach," Dr. Frank Smithies, Rochester, Minn.

The following officers were elected: President, M. A. Austin, Anderson; vice-president, E. C. Garber, Dunkirk; secretary-treasurer, Fred McK. Ruby, Union City; censors, C. M. Mix, Delaware Co.; C. P. Runyon, Madison Co.; M. M. Clapper, Blackford Co.; B. S. Hunt, Randolph Co.; M. T. Jay, Jay Co.

The next meeting will be held in Muncie, the first Thursday in May, 1913.

Adjourned. Fred McK. Ruby, Secretary.

NINTH DISTRICT

The Ninth Councilor District Medical Society met at Frankfort May 16. The scientific program consisted of the following papers: "Serum Therapy," Dr. H. H. Thompson, Noblesville; discussion by Drs. F. A. Dennis and A. G. Chittick. "Blood-Pressure Readings as an Aid in Diagnosis and Treatment," Dr. W. F. Howat, Hammond; discussion by Drs. J. R. Hicks and O. D. Hutto. "The Medical Examiner," Dr. M. T. McCarty; discussion by Drs. G. F. Beasley and A. C. Kimberlin. "Goiter," Dr. Carl B. Davis, Chicago.

At the conclusion of the meeting an elegant banquet was served, and toasts were responded to by Drs. W. J. Fernald, Edgar Cox, A. C. Kimberlin, T. B. Eastman, and W. F. Howat.

The following officers were elected for the coming year: President, W. R. Moffitt, LaFayette; first vice-president, J. R. Hicks, Covington; second vice-president, M. T. McCarth, Frankfort; secretary-treasurer, W. H. Dinsmore, Kramer, and assistant secretary-treasurer, F. A. Dennis, Crawfordsville.

The next meeting will be held at LaFayette some time in 1913.

TENTH DISTRICT

The Tenth District Medical Society held its regular meeting at Michigan City, May 2. The society was entertained by the LaPorte County Medical Society who arranged the program and gave a 6 o'clock dinner to the visitors.

The program was as follows: "Diagnosis of Insanity," Dr. Paul E. Bowers, Michigan City; Dr. A. C. Kimberlin, Indianapolis, conducted a clinic; Dr. B. H. Orndorf, Chicago, delivered an address on "The Present Status of Vaccine Therapy," and administered salvarsan intravenously by a very simple method. This subject was discussed by Dr. L. L. Tenbrook, LaPorte. Dr. Chas. Stoltz, South Bend, read a paper on "Who Shall Operate;" discussion by Dr. R. D. Blount, Valparaiso. Dr. W. E. Quine, of Chicago, gave a scholarly address on "Medical Ethics."

A vote of thanks was extended to the visiting physicians who participated in the program, and to the LaPorte County Medical Society for its splendid entertainment. The next meeting of the society will be held in Valparaiso in August.

Adjourned. Otis B. Nesbit, Secretary.

KOSCIUSKO COUNTY

The regular meeting of the Kosciusko County Medical Society was held May 28. Minutes of previous meeting read and approved.

There was a general discussion in regard to quacks, and the best means for the suppression of their falsehoods.

Under the head of "Clinical Cases and Case Reports" the following members took part: Drs. C. E. Thomas and P. G. Fermier, Leesburg; Dr. J. W. Heffley, Mentone; Drs. C. W. Burket, T. J. Shackelford, A. C. McDonald, G. W. Anglin, C. C. DuBois and C. N. Howard, Warsaw. This form of program is proving to be of unusual interest and attractiveness. It is more informal, more social, and much value is to be gained from the reporting of cases and viewing them from different angles. Interest in the meeting held the members until 5 o'clock.

The June meeting will be held at Claypool.

Adjourned. C. Norman Howard, Secretary.

MONTGOMERY COUNTY

The Montgomery County Medical Society met in regular session May 21 in Crawfordsville. A fine supper was served at 6 p. m., followed by the business session. A communication from the Council of the American Medical Association concerning the sending of a lecturer, was read and a committee appointed to arrange for the lecture. The meeting will be open to all.

A committee on refreshments was appointed, and will arrange for a meeting for June similar to the one held in May.

The paper of the evening was read by Dr. E. C. Lidikay, of Ladoga, on the subject "Abdominal Pain." In part the author said that pain in the abdomen is to be taken as a warning, and when pain is continued we can look for a continuation of the pathological process. A thorough knowledge of the secretions and excretions is necessary in order to a better understanding of the pathology of the abdomen. Constipation a common cause of abdominal pain; present in all ages. The colon bacillus is a most frequent cause, perhaps ranking next to the tubercle bacillus in causing mortality. In order to locate the origin of pain it is necessary to understand the nerve supply of the abdominal viscera. Pain often reflex in character. Appendix one of the most common causes of abdominal pain. In closing the author again urged a more careful study of the chemistry of the secretory organs, and the causes of constipation; also be on lookout for tuberculosis.

Drs. Ensminger and Barcus led the discussion. The paper was also discussed by Dr. Merle Hutchings, of Terre Haute, who spoke of imaginary pain, and mentioned the fact that the pain from appendicitis is reflex and is often found in a remote place from the pathological process. The discussion brought out clearly the diagnosis between imaginary pain and real pain. Diagnosis of abdominal pain must be made from symptoms and physical examination and not upon case history.

Twenty members were present.

Adjourned. J. L. Beatty, Secretary.

THE TRUTH ABOUT MEDICINES

This department presents, in concise form facts about the composition, quality and value of medicines. Under "Reliable Medicines" appear brief descriptions of the articles found eligible by the A. M. A. Council on Pharmacy and Chemistry for inclusion with "New and Nonofficial Remedies." Under "Reform in Medicines" appear matters, tending toward honesty in medicines and rational therapeutics, particularly the reports of the A. M. A. Council on Pharmacy and Chemistry and of the Chemical Laboratory.

The text on which these abstracts are based may be obtained from the American Medical Association, 535 Dearborn Avenue, Chicago.

RELIABLE MEDICINES

Articles found eligible by the Council on Pharmacy and Chemistry for inclusion with "New and Nonofficial Remedies."

Proferrin is a compound of iron and milk casein. It is tasteless, insoluble in water and dilute acids, slowly soluble in alkalies. It is used as a ferruginous tonic. It undergoes very little change in the stomach but is said to be quickly digested and absorbed in the intestine. Its hematogenous actions resemble those of other organic iron preparations. Dose, .13 to .3 gm. (2 to 5 grains). It is also marketed in the form of tablets each containing, respectively, 0.065 gm. (1 grain), 0.15 gm. (2½ grains) and 0.3 gm. (5 grains). H. K. Mulford Co., Philadelphia, Pa. (*Jour. A. M. A.*, May 4, 1912, p. 1356).

Tyramine is para-hydroxy-phenyl-ethyl-amine hydrochlorid $OH.C_6H_4.CH_2.CH_2.NH_2.HCl$, the hydrochlorid of synthetically prepared para-hydroxy-phenyl-ethyl-amine. Taken internally or injected subcutaneously tyramine increases the blood-pressure; it is also claimed to be valuable for producing post-partum contraction of the uterus. The action is similar to epinephrin, being weaker and slower, but lasting longer. It is marketed in the form of hypodermic tablets (Tabloid Tyramine Hypodermic) each containing 0.02 gm. (⅓ grain). Burroughs Wellcome & Co., New York (*Jour. A. M. A.*, May 4, 1912, p. 1356).

Tuberculin-Rosenbach is an "old tuberculin" modified by growing in a culture with Trichophyton holosericum album. It is claimed to be less toxic but more efficient than other forms of tuberculin. The validity of these claims is not fully confirmed. Kalle & Co., New York (*Jour. A. M. A.*, May 4, 1912, p. 1356).

Pharmaceutical Preparations of Accepted Articles:

Novocain Tablets "D" each containing novocain 0.2 gm. (3 grains).

Novocain Tablets "F" each containing novocain 0.05 gm. (3-4 grain).

Novocain Suprarenin Tablets "A" each containing novocain 0.125 gm. (2 grains) and suprarenin 0.000125 gm. (1-500 grain).

Novocain Suprarenin Tablets "B" each containing novocain 0.1 gm. (1½ grain) and suprarenin 0.00025 gm. (1-250 grain).

Novocain Suprarenin Tablets "C" each containing novocain 0.05 gm. (3-4 grain) and suprarenin 0.000083 gm. (1-1000 grain).

Novocain Suprarenin Tablets "E" each containing novocain 0.02 gm. (⅓ grain) and suprarenin 0.00005 gm. (1-1200 grain) (*Jour. A. M. A.*, May 4, 1912, p. 1356).

Cresatin is meta-cresyl acetate, $CH_3.C_6H_4.O(CH_3CO)$, the acetic acid ester of meta-cresol. It is said to be antiseptic and analgesic and is recommended for use in the treatment of affections of the nose, throat and ear, such as follicular tonsillitis, nasal suppuration due to ethmoidal diseases, atrophic nasopharyngeal catarrhs, furunculosis of the external auditory canal and purulent otitis media. Schieffelin & Co., New York (*Jour. A. M. A.*, May 25, 1912, p. 1582).

REFORM IN MEDICINES

The Sarsaparilla Absurdity.—Sarsaparilla is an almost universal constituent of "blood purifiers" (whatever that may mean). Preparations of it are also official in our Pharmacopeia. The fact that the drug is almost never used alone, but is almost always combined with something more active such as potassium iodid, shows that no one places any dependence on it. The Pharmacopeia should be purged of sarsaparilla and its preparations, if it is to continue to enjoy its own self-respect (*Jour. A. M. A.*, May 4, 1912, p. 1356).

Therapeutic Research.—Torald Sollmann, chairman of the Committee on Therapeutic Research of the Council on Pharmacy and Chemistry, discusses the need of more exact knowledge regarding the action of drugs. He outlines the plans whereby the Council hopes to aid therapeutic research. The following are some of the problems now being investigated: The clinical value of cardiovascular drugs, relative efficiency and toleration of natural and synthetic salicylates. Duration of action and absorption of Digitalis bodies. Efficiency of intestinal antiseptics, therapeutics of phosphorus compounds, standardization of antiseptics and germicides, pharmacology of commercial vanadium preparations, effects of origin and impurities on toxicity of chloroform, and fate, efficiency and side actions of organic iodids (*Jour. A. M. A.*, May 4, 1912, p. 1390).

Alcola.—This "cure for drunkenness," consisting of three kinds of tablets, was examined in the Association Chemical Laboratory. Tablets No. 1 contain caffein, about ¼ grain and strychnin, nearly 1-50 grain. Tablets No. 2 contain strychnin, about 1-100 grain. Tablets No. 3 contain about ½ grain tartar emetic. While this is a full dose of tartar emetic, the directions suggest that as many as 3 or 4 tablets may be taken without harm. Alcola is exploited by the Physicians Cooperative Association of Chicago which also sells Re-Ves-To, claimed to cure rheumatism, kidney disease, liver and bladder trouble (*Jour. A. M. A.*, May 4, 1912, p. 1390).

Pantopon Detoxicated.—Pantopon is said to consist of the hydrochlorids of the several alkaloids naturally occurring in opium. Containing 50 per cent. of morphin it has the disadvantages of morphin though this seems to have been largely overlooked by those who write in favor of it. H. Winternitz having found that in a case of tabetic crisis the morphin in Pantopon produced the same dangerous depression of the respiration as morphin when it was not in Pantopon got the manufacturers to demorphinize Pantopon. This new proprietary, which may be likened to the play of Hamlet with Hamlet left out, is called "Opon," the name being derived from Pantopon by cutting off the "pant" (*Jour. A. M. A.*, May 11, 1912, p. 1461).

The Composition of Nostrums.—Incidental to the prosecutions under the Food and Drugs Act the Federal Government is making known the composition of nostrums: St. James Society Drug Cure is sent out in a series of bottles labeled 1 to 10 which contain a mixture of morphin and alcohol. Gauvin's Aniseed Syrup, a "baby-killer," was found to be a watery-alcoholic solution of morphin acetate sweetened with sugar and flavored with oil of anise. Brant's Soothing Balm was found to consist of camphor and oleoresin of capsicum dissolved in alcohol and containing a trace of sassafras oil and water. Tilden's Febrisol, The Tilden Company, New Lebanon, N. Y., a proprietary nostrum exploited to physicians, was found to contain, besides certain unidentified drugs: alcohol, glycerin, acetanilid, acetphenetidin, caffein and salol (*Jour. A. M. A.*, May 11, 1912, p. 1461).

Effect of Hydrolysis on Germicidal Action.—Fuchsin acetate has germicidal properties while fuchsin sulphate and fuchsin chlorid are devoid of germicidal effects. This is probably because fuchsin acetate is decomposed by water (hydrolyzed) to yield the base fuchsin while the sulphate and chlorid are not so decomposed. In this way decomposition by water (hydrolysis) is responsible for the germicidal power of fuchsin in fuchsin acetate, commonly called "basic fuchsin" (*Jour. A. M. A.*, May 11, 1912, p. 1465).

The Ramifications of Quackery.—Last November many physicians received a request from a physician in central New York for the names of those afflicted with locomotor ataxia. Decoy letters brought replies containing testimonials relative to a "wonderful" serum treatment for locomotor ataxia by a Dr. C. H. Burton of Detroit, Mich. Burton was formerly associated with "Drs. Mixer" whose cancer-cure fake was made the subject of a fraud order as well as a prosecution under the Food and Drugs Act. In a post-office investigation, relative the Mixer fraud order, Mixer's congressional sympathizers appeared to be willing to accept the testimony of Dr. Burton to the effect that Mixer's nostrum would cure cancer despite the contrary testimony of Anders of Philadelphia, Carl Beck of New York, Deaver of Philadelphia, Kelly of Baltimore, Mayo of Rochester, Murphy of Chicago, Osborne of New Haven, and many other equally well-known physicians and surgeons (*Jour. A. M. A.*, May 18, 1912, p. 1517).

Winslow's Soothing Syrup.—While in this country the morphin content of medicines must be declared on the label, in England such labels contain the additional warning of "Poison." This requirement evidently decreased the sale of Winslow's Soothing Syrup in England and the product now sold there contains no morphin, potassium bromid having been substituted for the opiate as shown by analysis: potassium bromid, 2.0 per cent.; alcohol, 4.3 per cent. by measure; essential oil (anise) about 0.1 per cent. and sugar, 56.5 per cent. (*Jour. A. M. A.*, May 18, 1912, p. 1524).

Sal Hepatica.—According to the *Druggists Circular* the composition is: sodium chlorid, 13.05 parts; sodium sulphate, 26.27 parts; sodium phosphate, 29.80 parts;

sodium bicarbonate, 18.0 parts; lithium phosphate, 0.04 parts; citric acid and tartaric acid, to make 100 parts (*Jour. A. M. A.*, May 18, 1912, p. 1527).

Organic and Inorganic Phosphorus Compounds.—The alleged unique value of so-called "organic" phosphorus compounds in nutrition is being seriously questioned. Fingerling has published experiments which deal with the relative availability of various organic and inorganic phosphorus compounds—lecithin, phytin, nucleoprotein, casein, nucleic acid and disodium phosphate—in the production of milk. Experimenting on goats the materials to be tested were added to a ration already deficient in phosphorus, thus giving every opportunity for special advantages to manifest themselves. It was found that none of the substances exerted any specific influence whatever on the activity of the mammary glands. Neither the quantity of milk nor its individual constituents were increased. Thus we have another proof that the animal organism can satisfy its need of phosphorus adequately by means of inorganic phosphates (*Jour. A. M. A.*, May 25, 1912, p. 1605).

Swamp Root, the Fraud above the Law.—Analysis by the government chemists showed Kilmer's Swamp Root to be a syrupy liquid containing 8.55 per cent. alcohol by volume and 43.3 per cent. total solids including 42.6 per cent. sugars with a small amount of an aromatic balsam and a laxative principle. There was also present wintergreen, juniper and cardamon. Samuel Hopkins Adams in *Collier's Weekly* exposes the worthlessness of and the false claims made for this nostrum and discusses the means whereby it has gained immunity from prosecution. In conclusion it is emphasized that Swamp Root will not and cannot cure kidney, liver or bladder disease as claimed; that used in such diseases, it will often be harmful; and that it may sometimes even kill. It is suggested that the way to end Swamp Root's career of fraud is to spread understanding of what it really is: a compound of false promises and harmful drugs, protected by political pull, and backed up by a conscienceless newspaper; in all the realm of medical knavery, the most dangerous and law-destroying combination extant—the copartnership of quackery, blood-money, and fraud-nutured journalism (*Jour. A. M. A.*, May 25, 1912, p. 1616).

BOOK REVIEWS

Practical Electrotherapeutics and X-ray Therapy. With chapters on Phototherapy, *X*-ray and Eye Surgery, *X*-ray and Dentistry and Medicolegal Aspect of the *X*-ray. By J. M. Morton, M.D., Professor of Electrotherapeutics and *X*-ray methods in the Medical Department of Bayer University; in the Medical Department of Southwestern Medical College, etc. Containing 219 illustrations. Cloth, pp. 446. Price $4. Published by C. V. Mosby Co., St. Louis. 1912.

Dr. Morton's book has been written with the intention of reaching the student and the general practitioner rather than the specialist, and as a result many of the more elaborate details have been eliminated. The idea has been to make the book a manual for the busy man who has not the time to devote to the minutiæ more readily understood by the specialist in the work. The early part of the book is devoted to the physics of electricity, description of the types of the various apparatuses and the methods of application. The latter part is reserved for the diagnostic and therapeutic uses to which electricity and the *x*-ray may be applied. On the whole the work is condensed, clear cut, simple and easy of comprehension and yet contains many points of practical interest to anyone desiring to enter this line of work.

We feel that the author has well said that 95 per cent. of the trouble in the operation of an *x*-ray coil will be found in the tube. Those with any experience in this line will realize what an uncertain proposition the vacuum of an *x*-ray tube, be it ever so good, must needs be, and it is the earnest hope of every skiagrapher that the time will come ere long when this vacuum trouble in the *x*-ray tube will be eliminated.

With regard to the use of the *x*-ray in malignant disease, the author makes the rather sweeping statement that the proper use of the *x*-ray in the early development of malignant growths will put an end to every case, a statement that seems to us, in the light of past experience, somewhat too dogmatic.

Diseases of the Skin and the Eruptive Fevers. By Jay Frank Schamberg, M.D., Professor of Dermatology and Infectious Eruptive Diseases in the Philadelphia Polyclinic and College for Graduates in Medicine. Second edition, revised. Pp. 573. 235 illustrations. Philadelphia and London: W. B. Saunders Company, 1911. Cloth, $3 net.

The popularity which must have been the just desert of Dr. Schamberg's volume in its first edition would have warranted a second edition long ere this, for as was said in our original review, we consider it one of the best practical single volume works on the subject as yet published in the English language. The second edition impresses us still more firmly with this conviction because of the fact that the work is brought thoroughly up to date by the addition of chapters on Pellagra, Sporotrichosis, Grain Itch, Vaccine Therapy, Refrigeration, the Wassermann Reaction and Salvarsan. By such revision and inclusions, one is impressed that the progress being made in diseases of the skin, is commensurate with the progress even in surgery and internal medicine of the present day.

We know of no single volume work on the subject that is so condensed, so conservative and yet altogether so satisfactory as this work of Dr. Schamberg's.

The Surgical Clinics of John B. Murphy, M.D., at Mercy Hospital, Chicago. Volume I, Number I, 133 pages, and Number II, 291 pages, both illustrated. Philadelphia and London: W. B. Saunders Company, 1912. Published bi-monthly. Price per year: Paper, $8. Cloth, $12.

There are many points of decided value in the introduction into medical literature of such publications as The Surgical Clinics of John B. Murphy, M.D. Those who are fortunate enough to know Dr. Murphy recognize in him one of the ablest teachers of his science among the many surgeons of to-day. Hence it is that these publications, being as they are a verbatim report of Dr. Murphy's clinical talks as they are delivered at Mercy Hospital, Chicago, become intensely interesting and full of the individual force of the author.

The criticism might be offered that in the verbatim report of any clinical talk there is always the tendency toward both redundancy and verbosity. Now and then some uninteresting and perhaps unavoidable, yet withal some useless interpolation will find place that would not obtain in the carefully written text-book. On the whole, however, these publications form a distinct addition to the surgical literature of the year, and are well worth the time spent in their careful perusal by all interested in modern surgery.

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ORIGINAL ARTICLES

CRISIS OF THE NERVOUS SYSTEM *

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It is my purpose in this paper to demonstrate the occurrence of crises in all forms of progressive nervous diseases. They may be manifested by the sudden exacerbation of all the symptoms or the sudden beginning of an entirely new set of symptoms, existing from a few moments to days or even months in mental disorders. The uniformity of their occurrence in all forms of nervous diseases is not merely coincidence.

The subject is one on which I find literature on diseases of the nervous system is singularly silent when the crises are considered collectively and yet is one deserving profound study.

If the etiologic factors operating in producing the simplest of these crises were understood, it might enable us to unravel the etiology of the more serious disturbances.

We know the symptomatology of their occurrence; we known the causes that will produce the necessary degree of irritation to the nervous system, that will make it attempt to relieve itself (if that is what it does) by these various explosions; but *why* the nervous system will tolerate these irritating conditions for a period of time without evidence of the strain and then produce an explosion or crisis is more difficult to understand.

These crises vary in intensity from a simple neuralgia to the severe, often fatal, convulsive seizures of epilepsy.

The common classical crises described in our text-books are well known.

They are laryngeal crises consisting of attacks of spasm of the adductors or paralysis of the adductors of the larynx, with noisy, croupy respiration.

Bronchial crises consisting of paroxysms of coughing with rapid breathing.

Cardiac crises in which there are dyspnea, with tachycardia and sense of suffocation resembling angina.

Gastric crises consisting of attacks of intense pain extending from the groin to the epigastrium or encircling the waist, accompanied by vomiting and sometimes diarrhea.

Bladder crises with tenesmus of the bladder, great pain and frequent urination.

Rectal crises with rectal tenesmus, severe pain and frequent desire to go to the stool, etc.

These forms of crises are well known and need not be described in detail. They occur in many progressive organic diseases of the nervous system. *To these ought to be added* the great number of diseases of the nervous system in which the *crisis* seems to be the only symptom.

The most common of these is supraorbital neuralgia occurring from eye strain. This form of migraine, resulting from eye strain, should be more carefully studied because it is from a definite etiologic factor. If the oculists can demonstrate why the optic nerve or the other nerves of the eye will endure a continuous strain for an indefinite period without any especial symptom and then suddenly, without any apparent increase in the strain, a severe explosion with the pain over the eye and the nausea and vomiting with the great prostration of a sick headache is produced, then it will be easy to explain why

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the other crises in the diseases of the nervous system occur.

Here the cause is known and yet the nerves endure, often for a long period, the continuous irritation of the strain and the explosion and severe pain only occur at more or less definite intervals.

This may be said to be the key to the causation of crises in other diseases of the nervous system. If it can be explained why the eye endures a continuous strain with a crisis only at intervals, then it may be explained why the general nervous system will endure a continuous strain for a period of time and then produce an explosion such as occurs in the convulsions of epilepsy.

If the pathologic changes that occur in the nerves of the eye at the time of the migraine can be demonstrated, then the pathologic changes that occur in the general nervous system at the time of a convulsion may be explained.

The next most common form of crises is the migraine that results from other causes than eye strain, the most common of these causes being an inherited diathesis with auto-intoxication from the intestinal tract, or the toxins of an infectious disease, or from drugs, or a debilitated physical condition from any cause.

Here we have the same condition as in migraine from eye strain. The nerves endure a continuous strain for an indefinite period but the crisis only occurs at intervals. Whether the nerves are relieved of a toxin which has been accumulating until the degree of tolerance is passed, and by an explosion these toxins are eliminated, is only a matter of conjecture. Apparently they are not injured or weakened by the explosion and resume their functions, as a rule, with increased vigor after the crisis is past.

The most typical crisis occurring in the human being is epilepsy. This varies in its intensity from a momentary period of unconsciousness to the profound convulsive seizure of the grand mal.

The causes of epilepsy are so many and varied that it is impossible to enter into them at this time. It is conceded that, except in organic epilepsy, there must be a diathesis, either inherited or acquired, and to this must be added some *irritation* whether a toxin, a shock or other agency.

Here again we have the feature of a crisis occurring only at intervals while the causative factors continue all the time.

To understand that the convulsion of epilepsy is simply a crisis in the course of the disease at once simplifies the study of epilepsy. It makes the convulsion a symptom of the disease and not the disease itself. The *disease* is the *irritating condition* or *cause* which so operates on the nervous system that it shows that the degree of tolerance is passed and the explosions, as evidenced by the convulsions, are the result.

In epilepsy we have the occurrence of a crisis of crises, if the expression is allowed; that is, while the patient may go for a long time having one or two convulsions at more or less regular intervals, he may suddenly have a crisis, when he may have from four or five to 100 or more convulsions after which, if he survives, he may have his convulsions at the regular intervals again.

In organic epilepsy there is an instance of a typical crisis occurring at intervals with the cause acting continuously. Here we are confronted by the same questions as in migraine.

To take the most typical example: a depressed fracture of the skull may have existed from early childhood. The brain endures the continuous compression resulting from this fracture frequently for years and then the epilepsy occurs; at first single seizures with long intervals, the seizures gradually increasing in frequency. Here we have a known cause, which can be easily demonstrated to exist, and which may be the only etiological factor, and which keeps up the same irritation continuously, without a single moment of relaxation, and yet the revolt of the nervous system, as evidenced by the crisis occurs only at intervals.

In migraine and epilepsy we have the typical instances in which the crisis seems to be the only evidence of the disease.

That a continuous irritation of the nervous system, either general or local, will lead to the production of crises in some form, either general or local, can be demonstrated in every progressive disease of the nervous system, functional or organic.

In hysteria the crises are a prominent symptom. Dana defines hysteria as a "chronic functional disorder characterized by nervous crises of an emotional, convulsive, or other nature, and by an interparoxysmal state in which certain marks or stigmatæ are present." He further states that "its component parts are the paroxysms or 'crises,' as they are called, on the one hand, and the peculiar symptoms of an interparoxysmal state on the other hand."

In hysteria minor the emotional crises may be the only symptoms. In hysteria major we have the interparoxysmal manifestations of anesthesia, paralysis, contractures, tremors, and peculiar mental conditions so familiar to us all. The

most common of the paroxysms are emotional outbursts of crying or laughter; after these come motor disturbances in the shape of convulsions of various types, or hemiplegia or other types of paralysis. Besides these we may have attacks of severe pain forming neuralgic crises; attacks of nausea, gastralgia and vomiting forming gastric crises; much more rarely there are prolonged attacks of hysterical coughing, hiccoughing, sneezing and rapid breathing.

So necessary a part are the occurrences of crises to the formation of the picture of hysteria that a diagnosis of pure hysteria should not be made without the history of their occurrence.

In *neurasthenia* the crises are manifested by the frequent occurrence of headache and neuralgia, with a recurrence of the insomnia, anorexia, anxieties and distressing mental symptoms.

Often there will be a sudden stagnation in the digestion without error of diet, constipation or other cause. Often these attacks will continue after the patient has regained comparative health and he will be unable to understand the cause.

If he is made to understand the liability of these attacks, one cause of the fear and anxiety, which are the most distressing symptoms of this disease, will be removed. These crises are only less severe and can be compared to the gastric and other visceral crises of the organic spinal diseases.

In exophthalmic gaiter we have the crises manifested by sudden attacks of tachycardia without a visible increase in the cause. In this disease also we have sudden attacks of diarrhea with watery discharges occurring without known cause and terminating without special treatment.

In the *organic* diseases of the brain and spinal cord the crises are no less a constant accompaniment but their importance is regarded as secondary to the other prominent symptoms.

In tumors and other neoplasms of the brain the crises are apt to be general or jacksonian convulsions, sudden attacks of projectile vomiting and severe cephalalgia.

In tabes dorsalis attention is particularly drawn to the striking crises that occur. There may be any of the visceral crises, laryngeal, bronchial, cardiac, gastric, bladder or rectal. Sudden crises in the electrical pains in the limbs occur and the patient suffers acutely for hours. These crises may last from a few moments to hours and even days. Sometimes a crisis is the first symptom to attract the attention of the patient before the diagnosis of his disease has been made.

The crises of tabes are made the more prominent because the sensory nerves are involved and the severity of the pains makes the patient demand relief.

Sometimes the crises in this disease assumes the form of epileptiform or apoplectiform convulsions.

These crises may continue after the disease has apparently been arrested and marked improvement shown in the condition of the patient. Their occurrence may not mean any recurrence or progress in the disease.

The visceral crises occur in spinal myelitis, especially in the beginning of the disease. Sometimes a gastric crisis ushers in an attack of transverse myelitis.

In tumors and new growths of the cord visceral crises occur.

In multiple sclerosis crises of various nature may occur, depending on the number, size and location of the sclerosed patches. The patient sometimes suffers from attacks of vertigo and occasionally from sudden seizures resembling apoplexy, and even epileptiform attacks may occur.

In the general paralysis of the insane the crises are apt to be epileptiform or apoplectiform in character. If apoplectiform, the hemiplegia or other paralyses are apt to be transitory in their nature and the patient quickly recovers from his paralysis.

Sometimes these attacks occur early and are the first prominent symptoms to call attention to the serious nature of the disease.

In the insane conditions the crises are of a different nature from those just described. They are chiefly evidenced by sudden exacerbations in their mental disorders accompanied by restlessness, insomnia and maniacal excitement.

The patient may go for weeks, months and even years without visible change in his mental condition and then gradually or sometimes suddenly show evidence of intense mental disturbances. This disturbance may last from a few hours to months before the patient again subsides into a quiet and tractable condition. Sometimes these attacks occur so suddenly as to resemble epilepsy in the suddenness of their onset. A patient who is passing through such a crisis is termed "disturbed" by those who have him in charge in most hospitals for the insane. Sometimes patients have their disturbed periods at regular intervals, the attacks beginning suddenly, resembling epilepsy in this particular. Sometimes these disturbed periods occur once or twice a month or even as often as once or twice a week and last from a few hours to several days

each time. It is rare for a ward with the usual number of patients to be without one or more who are disturbed.

The insane who have passed through a disturbed period rarely recover their mentality sufficiently to be in as good a mental condition as they were before their attack. Each attack marks a gradually increasing dementia. Especially is this true of the general paretics. Sometimes they will pass into the stage of dementia after a single apoplectiform seizure.

The difference in character in the crises of the insane from those in which other portions of the nervous system are involved or from those which exist in the functional nervous diseases, can be explained because among the insane the nervous tissue involved must necessarily be the brain and the cerebrospinal nerves are not necessarily changed pathologically.

In the diseases of the brain with gross lesions as in tumors, gumma, or general paresis the crises are just as sudden and just as striking in their phenomena as in the diseases of the spinal cord.

In the insane, without demonstrable lesion, where the changes are probably in the gray cells of the cortex, the symptoms of the disease are manifested by the mental condition.

Hence we would expect the crisis to be a mental disturbance and it may be slow developing and slow disappearing.

The frequent recurrence of the crises in any disease of the nervous system for a long time will produce an impression on the nervous system which will cause the crises to be produced long after the etiologic factors causing the first seizures have been removed. This seems to be because a habit has been produced.

This formation of a habit may explain why the migraine or supraorbital neuralgia may persist after the eye strain has been relieved. Or why the causes of epilepsy such as an adherent prepuce, an irritating scar, the development of puberty, the intestinal auto-intoxication, etc., etc., may have been entirely removed and yet the epilepsy continue with gradually increasing frequency.

This formation of a habit may explain why we have the recurrences of stagnation in digestion with all the symptoms of auto-intoxication, or the various neuralgias with mental disturbances, that occur in neurasthenia, after the individual has apparently regained his health.

This habit formation may explain why the patient with tabes dorsalis may continue to have his electrical pains and even visceral crises after the disease has apparently been arrested and he has regained a condition of comparative comfort.

Analogies to the crises in the diseases of the nervous system may be found in diseases of other tissues and organs. For instance, the attacks of angina pectoris and cardiac asthma of arteriosclerosis. Here we have the cause existing continuously but the attacks occurring only periodically.

In this disease also we have attacks of vertigo and even apoplectiform attacks with transitory hemiplegias.

The attacks of uremia with or without uremic convulsions may occur periodically in chronic interstitial nephritis.

These attacks in arteriosclerosis are believed to be the result of vasomotor disturbances. This may be a causative factor in producing the crises in the diseases of the nervous system, at least it may explain the mechanism at the time of the seizure.

The law of periodicity which governs our time of work and of our rest, of our eating and our sleeping, of the passage of the dejecta, of the menstruation of women, the period of incubation and of all our activities, may also govern the nervous system and is the only explanation that we can give. To summarize:

1. Crises occur in some form in all nervous and mental diseases, functional or organic.

2. These often constitute the only symptoms of the disease; they may be the most valuable means of arriving at a diagnosis; they may mark the onset and be the first noticeable symptoms to attract attention to the disease. They may persist as a habit after the causative factors have been removed.

3. "A crisis of the nervous system, either general or local, is evidence of a continuance strain or irritation either general or local," and *vice versa*.

4. "A continuous irritation or strain of the nervous system, either general or local, may lead to the production of crises in some form, either general or local, which may vary in the intensity of its manifestations from a local pain to a general convulsion."

DISCUSSION

DR. C. F. NEU, Indianapolis: The writer has directed our attention to a specific, rather peculiar and at times a most complex and perplexing clinical manifestation, not only in regard to its probable causation but also its treatment, and has applied it in a very broad sense, thus opening a correspondingly broad field for discussion. But for all practical purposes clinically there are but two phases of it which are of particular importance. First, its etiological; and second, its

clinical significance. In the broad sense given to such a symptom-complex, as one may speak of it, it is rather improbable, desirable though such might be, that any one condition or factor can be regarded as being responsible for such manifestation. One cannot imagine the same etiologic factor or condition to be present in a maniacal outburst—in a melancholic stupor—in a typhoid delirium, in an alcoholic hallucinosis, in an epileptic seizure, in a neuralgic pain, or in an hysterical orgasm. It is true that the direct inciting cause producing the so-called stress or strain may be an overwhelming stimulus, leading, as it were, to an explosion on the one hand, or on the other hand to an inhibition of certain regulative, governing or controlling mechanisms; yet it cannot but be evident that there must be some other underlying conditions entering into the makeup of the organism, else why do we have the different forms of crises resulting from the same irritating cause? Why in the one case there occurs a neuralgiform pain, in another an epileptic seizure, in another an emotional outburst, in another an intellectual disturbance?

It seems quite reasonable to assume that at times it is possible to determine whether the direct inciting cause has been an overwhelming stimulus, the crisis being the result of an overactive mechanism, or whether the invading stimuli have inhibited or paralyzed the action of this same mechanism, thus allowing the machinery to run without the restraining influence of its control. In the majority of cases, however, it seems rather doubtful whether such a specific determination be possible.

Furthermore, it seems more probable that the essential etiologic factor lies in the composition of the constitutional makeup of the organism and its activity in the processes of attraction or repulsion of the various stimuli acting on it, whether from within or from without. What elementary constituents enter into that composition concerns living protoplasm. This cannot be said to be a constant status but must continuously be undergoing changes according to the degree and intensity of the metabolic processes while at work or at rest. In the changes which the living protoplasm of the various cells undergo during the metabolic processes in the performance of function, in the breaking-down on the one hand, or in the building-up on the other hand of their constituents, it is but reasonable to assume that in the former the degenerative products predominate, and in the latter the regenerative, and accordingly we find a weakening or a strengthening of the regulative or resistant power of the organism.

In organic diseases these processes are further impaired by the introduction into the system of other deleterious agencies, these varying according to the direct cause of the diseased condition. So long as this impairment remains within what may be called physiological limits Nature is capable of accommodating itself to the extra stimulation, but when such limitations are exceeded an explosion or crisis takes place, which may be regarded as Nature's method of relieving the tension and reestablishing its equilibrium.

This of course does not explain why in an epileptic constitution a crisis should at one time be manifested by a maniacal outburst, at another time by a confusional state, at another time by a convulsive seizure, at another time by a simple loss of consciousness momentarily. Neither does it explain why the mental crisis of an organic disease may resemble in almost every respect outwardly that of a so-called functional origin. In these conditions we have the same constitutional makeup reacting differently to the agencies acting on it, hence the character or quality of the stimuli is apparently the variable quantity. Does this variability in reaction depend on a difference in the intensity or duration of action of the stimulus, or upon the difference in the elementary character of it, or may it not be that there is a different arrangement from time to time of the elementary constituents of the living protoplasm acted on or is it probable that all of these factors are involved? Is it within the realm of human possibility that this problem can or will be solved? Time alone will tell.

So far as the clinical significance of the various crises is concerned it may be said that such varies with or is dependent on the etiologic facts at the basis. While relatively the emotional outbursts, or the sudden loss of sensation or motion are as characteristic clinically of hysteria as are the lightning pains for locomotor ataxia, or as are the various seizures of epilepsy, yet one can scarcely attach the same significance to each of them other than their indicativeness of the underlying conditions.

Apart from the more or less constant stress or strain to which every individual is subjected, the intensification of which may be the direct inciting cause of a critical manifestation, there must be considered the resistance or the non-resistance of the organism, the immunity or the non-immunity to the overactivity of the invading stimuli, whether they arise from within or from without the organism. Some of this so-called immunity or lack of immunity is derived from certain qualities or characters given by hereditary transmission, and a great deal of it is acquired by appropriate education and training. In the so-called functional diseases which manifest crises in their symptom-complex in the latter category is where the fundamental etiology lies. In the organic diseases it seems reasonable to assume not only that there is an increase in the stress and strain, but also that the resistance has been lowered by the introduction into the system of deleterious agencies of whatever nature they may be.

WHAT THE GENERAL PRACTITIONER SHOULD KNOW CONCERNING INFECTION OF THE KIDNEY

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My object in presenting this paper is to call the attention of the general practitioner to the fact that a more careful examination of some of his apparently obscure cases would enable him to make an early diagnosis in some of them at least, of diseased conditions of the urinary organs amenable to surgical treatment, if they are recognized early enough. The field of kidney and ureteral surgery no longer remains the domain of the specialist or of the general surgeon alone. At the present day the patient has the right to demand that his attending physician have sufficient knowledge of the clinical manifestations of tuberculosis, neoplasms, calculous disease and infection of the kidneys to enable him at least to think of the urinary organs as being the seat of the trouble for which he has been consulted, and to concentrate his attention toward making the correct diagnosis. If his own resources are exhausted, he should summon to his aid the urologist or the surgeon who has made a study of this special field. The day has passed when a patient suffering from chills, fever and sweats can any longer be treated with quinin on the blind theory that malaria has been the cause of these symptoms. The constant presence of pus in a patient's urine can no longer be diagnosed as due to cystitis, while the patient's golden chance for the discovery of a tuberculosis of the kidney is passing. In a similar manner the diagnosis of stone in the kidney does not any longer depend on the presence of renal colic alone, for this disease may present itself under as serious a picture as almost any of the forms of febrile diseases met with in the practice of medicine.

Up to within recent times it was a generally accepted teaching that one should not make a diagnosis of gall-stones unless the patient had passed through a typical attack of colic or jaundice had been present. It took a long time to eradicate this notion and to-day we know that there are many cases of disease of the biliary passages without either colics or jaundice. In an analogous manner the teaching that every case of calculous disease of the kidney must have a colic, and similar erroneous notions, have greatly retarded the possibility of making a diagnosis in many of the surgical affections of the urinary organs. In many cases of the latter there are so few symptoms pointing to the kidney that it is only by a careful process of elimination that a diagnosis can be made. The principal fallacies still extant are:

1. That every case of kidney and ureteral stone manifests its presence clinically by a typically renal colic, so familiar to all.

2. That every attack of renal colic necessarily means that the patient has stone in the kidney or ureter, or both.

3. That every patient with pus in his urine, especially if he also has increased frequency or painful urination, must have a cystitis, deep urethritis, etc. He is compelled to run the gamut of every known method of local treatment before thought is given to the possibility of a kidney tuberculosis being the cause of his purulent urine.

4. That when a patient has a fever, of whatever type, be it continuous, remittant or intermittent, if typhoid or malaria are not diagnosed or eliminated, the case is so often set down as one of "obscure fever" or auto-intoxication, or what not. In some of these cases the absence of any localizing kidney signs will, I grant, tax the ability of the most skilled diagnostician. A careful examination of the blood will soon eliminate the presence of malaria or typhoid, but the possibility of such "obscure fever" being of renal origin is seldom thought of.

Before taking up the detailed consideration of some of the principal surgical diseases of the kidney, I desire to emphasize the following aphorisms gained from a relatively large experience in this field:

1. That there are many cases of surgical diseases of the kidney without a single sign pointing directly to the kidney as the source of the symptoms.

2. That there are many cases of obscure fever which have their cause in the kidneys.

3. That there are many cases of stone in the kidney or ureter, or both, which never have the symptom known as renal colic, and, further, that there are many other conditions besides kidney or ureteral stone which can cause attacks of typical renal colic.

4. That many cases of kidney disease — especially is this true of tuberculosis — cause more bladder than kidney symptoms.

5. That the first sign of some cases of kidney disease — especially of tumor — is a severe hematuria.

DIAGNOSTIC AIDS

In diseases of the bile passages amenable to surgical treatment, we can make a diagnosis in

the greater number of them by a careful study of the history and our local findings. We need aid at times in the examination of some of the secretions like the gastric contents, which can be readily obtained through the use of the stomach tube. Examinations of the feces, blood or urine may also be necessary in order to make a diagnosis. All of these data, however, can be obtained by one who has not had special training and without the use of what may seem to some, complicated instruments. In this respect the diagnosis of affections of the urinary organs which can be relieved by surgical treatment differs greatly from that of other organs, especially from that of the bile passages, to which we can best compare them. The use of special instruments and other diagnostic methods to aid in the recognition of surgical diseases of the urinary tract is one of the chief reasons for the rapid advances made during the past ten years. On the other hand, many of these diagnostic methods, especially the use of the cystoscope and ureteral catheter, have impressed the general practitioner as so difficult to employ that they have seemed impracticable. If I can only leave with you to-day the fact that radiography of the urinary organs, cystoscopy and ureteral catheterization are absolutely indispensable in making a diagnosis of the affections of the kidney, ureter and bladder, I will feel well rewarded. These methods have revolutionized the surgery of the urinary organs. No experienced operator to-day would consider the exploration of the kidney or ureter for a stone without a positive shadow. The use of the wire bougie or collargol injection will confirm the fact that the shadow is due to something inside of the ureter or kidney, and not caused by one of the many conditions, both normal and pathologic, which can give rise to extraneous shadows easily confused with genuine ones. A radiograph of the urinary tract can only be satisfactorily taken if the patient has been properly prepared and if the radiographer has had experience in this special field. The pictures which we usually take at the Michael Reese Hospital are one covering the upper urinary organs (kidney and upper ureter) and a second which includes the lower tract (lower ureter and bladder).

I can only refer to some of my other articles for details as to the preparation of the patient, technic of picture and interpretation of the shadows.

The other two special methods of diagnosis, cystoscopy and ureteral catheterization, require, it may be granted, special training. There are, however, in every large city and in many of the smaller ones, men who have acquired skill in this direction, and the patient should not be denied the use of these aids to diagnosis if there is the slightest suspicion of disease of the urinary organs. If we recall the fact that in 90 per cent. of all cases of tuberculosis of the kidney the disease is present on only one side at an early stage, and that if we remove the diseased kidney the patient can be permanently cured, one can readily see what a debt we owe to the cystoscope, which will tell us at a comparatively early period that the patient's complaints are not due to a cystitis, but that changes around the ureteral orifice of the affected kidney will often allow a positive diagnosis of tuberculosis of that side to be made. The cystoscope tells us whether the disease is in the bladder or in the kidneys, and when we summon to our aid the accurate collection of the urine separately from each kidney through the use of two ureteral catheters, we can determine not only which kidney is involved and the nature of the disease, but can tell whether the kidney is in normal position, whether there is only one kidney, or an anomalous shaped one (horseshoe), and, finally, the amount of destruction of the kidney and the exact work each organ would do if its mate were removed. These are all facts which we must have to-day before we can make a diagnosis and consider an operation. But your own inability to employ these methods should not hinder you from giving every patient the benefit of them. I have only indicated in a general way what these newer methods of diagnosis have done for us. We cannot rely on them alone, but need a good history of the case, a careful analysis of the blood, urine, etc., and a most thorough examination of the patient to-day as much as in the past. The cystoscope, ureteral catheter and *x*-ray have done for the diagnosis of surgical diseases of the urinary organs what the ophthalmoscope has accomplished for diseases of the eye and some of the affections of the brain. It tells whether the trouble is in the eye or further back in the brain. These newer methods of urinary diagnosis tell us whether the trouble is in the lower urinary tract (urethra, prostate, seminal vesicles and bladder) or further up, in the upper tract (ureter, kidney pelvis and kidney parenchyma).

Owing to lack of space and time, I cannot give you the details of the diagnosis of surgical diseases of the kidneys, but shall content myself with a brief account of the principal clinical pictures under which the more important of them appear.

It is not my purpose to weary you to-day with a tedious recital of the principal symptoms and

methods of treatment of all of the forms of surgical diseases of the kidney. I intend only to quote some typical cases from my own practice illustrating the difficulty of diagnosis. I shall only attempt to discuss one of the principal diseases, namely, infection of the kidney, and shall feel well rewarded if I have been able to arouse interest in this branch of surgery.

Microorganisms reach the kidney by one of two routes: (a) through the blood current giving rise to a form of infection commonly spoken of as hematogenous, and (b) a second method of entrance, along either the mucous membrane or lymphatics of the ureter, ascending in this manner from the bladder or from contiguous organs and giving rise to a so-called urogenous or ascending infection of the kidney. Suppuration in the kidney may give rise (a) to multiple small foci of infection scattered all through its parenchyma, and especially marked on the cortex of the kidney, in the form of groups of miliary abscesses. This form is commonly termed pyelonephritis. It may remain as such or a more severe degree of infection and destruction of the parenchyma supervene, so that the kidney is converted into a sac containing a variable amount of pus. If the infection spreads to the tissues around the kidney, perinephritic suppuration occurs. Infection of the kidney with the ordinary pus-producing microorganisms like the colon bacillus, the staphylococcus or gonococcus may appear alone or be present as a complication of stone or tuberculosis of the kidney.

(b) When the pelvis of the kidney is involved alone, the condition is called a pyelitis. This may exist with practically no extension of the infection to the parenchyma, or, on the other hand, there is more or less involvement (along the tubules of the kidney) of the parenchyma. Clinically, one meets with infection of the kidney in five principal forms. First, a form which has been called the *hyperacute hematogenous* form, in which the clinical picture is one of such extreme and severe sepsis that the diagnosis is often not made until too late to be of service. In such cases there is very high fever, 106 or 107 F., accompanied by chills, rapid pulse, prostration and other signs of severe septic intoxication. Death often occurs in these hyperacute cases within twenty-four to forty-eight hours. It has not been my good fortune to meet one of these cases, hence I cannot quote one in the following series.

A second form is one in which there are moderate degrees of fever, but even in these the temperature may rise quite high. It may be of a continuous type or, on the other hand, there may be afebrile periods alternating with these periods of chills, fever and sweats, resembling in many ways an ordinary case of malaria. They differ, however, from malaria in the fact that the chills do not occur periodically, but recur at times once or twice daily, or may not occur for two or three or even four days. The chills and temperature may or may not be accompanied by colic and tenderness over the kidney and by the presence of more or less pus in the urine. These are the cases which one might call the mild or moderate forms of septic infection of the kidney, or, more correctly speaking, pyelonephritis.

The third class of cases of renal infection are those in which the pelvis is predominantly involved, namely, a pyelitis. In these the urine shows constantly the presence of larger or smaller quantities of pus. It was formerly thought that if certain varieties of epithelial cells appeared in the urine accompanying pus, especially epithelia with peculiar long tails, that the pus must come from the pelvis of the kidney. We now know that there is no form of epithelium which characterizes or is indicative of disease in any certain part of the urinary tract. The absence of tubercle bacilli in the specimen and the ability to demonstrate the colon bacillus or the pus organism, especially the *Staphylococcus albus*, in such cases, combined with cystoscopic examination and ureteral catheterization, will usually reveal the source of the pus. Such cases seldom, if ever, require treatment other than medical, namely, the administration of vaccines, autogenous, if possible, as the results are never as good with stock vaccines of the colon bacillus. One can also obtain most gratifying results by irrigating the pelvis of the kidney in such cases with mild antiseptic solutions. Of these a favored remedy is a 1-to-1,000 solution of aluminous acetate. In some cases of extensive destruction of the kidney, the only clinical symptom may be the constant presence of pus in the urine, and it is practically impossible to differentiate such simple cases of pyelitis from a pyonephrosis unless the amount of pus is very large and unless one finds, as is not infrequently the case, a considerable enlargement of the kidney.

The fourth class of cases of renal infection embraces those commonly spoken of as pyonephrosis. In many, however, a condition of hydronephrosis has preceded the septic condition, the kidney becoming later infected as the result either of microorganisms gaining access to it through the blood current or along the ureter, as has been explained. The presence of large quantities of pus, of an enlarged and tender kidney, of fever of a more or less continuous type, should always

make one suspicious that the condition is not one of pyelitis, but rather of pyonephrosis.

The following case well illustrates how a hydronephrosis may exist for many years without giving rise to any clinical symptoms until infection occurs.

The fifth class of cases of renal infection are those in which the microorganism has gained access to a kidney which is either infected with tuberculosis or is the seat of calculous formation. The first symptom may often be a fever whose origin is practically impossible in many cases to discover unless one thinks of the kidney as the source of the temperature. It is surprising how seldom the general practitioner will think of a renal infection being the cause of temperature. This is true not only of adults, but equally so of children. Only too often does it happen that cases are treated for days to weeks with diagnoses such as malaria, typhoid fever, cryptogenetic septicemia, enteritis or what not, when the real cause is in the kidney.

J. L., aged 50, was referred to me during the summer of 1909 on account of a ventral hernia following an appendectomy performed in Iowa ten months previously. Fourteen years before being seen by the writer he had noticed pain on the right side of his abdomen severe enough to cause him to go to bed. Blood was found in his urine and a stone was passed. A second attack occurred two years later. Another two years after this second attack. Each attack lasted two to three days at a time. March 20, 1909, he had been operated on for gangrenous appendicitis with abscess formation, in Iowa, and this had left a postoperative hernia. Following the operation he had chills and fever quite frequently. A few days before seeing me he had begun to have severe aching pain in the right groin just above Poupart's ligament, accompanied by nausea, but not by vomiting. These attacks had been present in milder forms for about six weeks previously. Only one of the attacks had been preceded by a chill. There was distinct frequency of urination; he had been yellow eight times, but had never had pain in the gall-bladder region. Every symptom pointed to some septic complication of the previous appendicitis. A careful search was made for evidences of deep-seated abscess formation in the vicinity of the wound and for signs of subphrenic abscess; but everything was negative. The temperature when first seen varied from 102 to 103. There were absolutely no symptoms or evidences of any kind pointing to an infection of the kidney. It was by recalling the facts that he had passed a stone some years ago, that there was considerable pus in the urine which seemed by ureteral catheterization to come almost exclusively from the left kidney and the finding of two calculi by the *x*-ray — all indicating the presence of infection of the left kidney — that a diagnosis was made.

An exploratory operation was performed, the left kidney exposed and found the seat of quite excessive suppurative changes. The ureter was completely blocked by a calculus about the size of a lima bean, which was so firmly imbedded in the ureter that it was only dislodged with great difficulty. A second calculus was found in the pelvis of the kidney. On account of the advanced state of infection, it was deemed advisable to perform a nephrectomy. The patient's temperature dropped immediately after the operation and he made an uneventful recovery.

A second quite similar case was that of Mr. A. C., aged 57, referred by Dr. M. L. Goodkind in July, 1910. A patient who had been treated for many years for chronic kidney trouble began to have disturbances in urination. The urine had contained for several years considerable quantities of pus, but there had been no blood except once two or three years ago. He never had any abdominal or renal colic, and only three weeks before being seen developed a cramp-like pain in the right side of his abdomen. He had lost considerable in weight and when seen was the picture of severe urosepsis. By this I mean the condition which results from the toxins present, or the septic condition which gradually results from long-standing infection, either of the bladder alone, or as occurs more frequently with complicating ureteral and kidney infection. These patients look waxy and anemic. They usually have from 1 to 3 degrees of evening rise of temperature, lose in weight and appetite and from time to time the clinical picture is varied by repeated attacks of chills, fever to 105 or 106, followed by sweats. The most frequent etiologic factors are either stricture of the urethra, hypertrophied prostate or obstruction of the ureter by calculi or stricture.

In this case a radiograph taken about six months before I saw him showed two vesical calculi and one calculus blocking the right ureter just above the brim of the pelvis. The second picture, taken a few days after I saw him, revealed the fact that the ureteral calculus had wandered downward until it was just a little above the level of the bladder. His temperature was of the septic type — 100 in the morning, and 103 to 105 in the evening, accompanied at times by chills. On account of his extremely septic condition, any radical procedures were out of the question, so that we were obliged to content ourselves with exposing the kidney, puncturing the multiple abscesses found in its cortex, namely, the typical picture of pyelonephritis, as previously described, and then making a suprapubic opening into the bladder, evacuating large quantities of pus and removing the two calculi which had been previously seen in the radiograph. The patient's condition improved considerably for a

week or ten days, but he began soon to show symptoms of uremia and died about three weeks after operation. I am confident that if such cases were recognized and the sources of obstruction removed, or at least drainage provided for that, many lives could be saved thereby. When infection supervenes on other infective processes of the kidney, such as tuberculosis, they may predominate the clinical picture to such an extent that unless tuberculosis be kept in mind, its presence is not suspected until the kidney is operated on.

The following case, referred by Dr. Simon, about three years ago, well illustrates this point: Mr. M. P., aged 50, had gradually lost in weight for a year preceding his admission to the hospital. His urine contained during this time a fair amount of pus, but there were no symptoms referable to either the kidney or bladder. One of the most classical symptoms of tuberculosis of the kidney, even before involvement of the bladder itself, is frequency of urination. This was entirely absent in this case. His temperature varied from 103 to 104, was of an irregular type, and often accompanied by severe chill, or rather the temperature was preceded by these chills. The urine showed microscopically the presence of tubercle bacilli in a fair quantity, and also of pure culture of the colon bacillus. Ureteral catheterization showed that the pus came almost exclusively from the left kidney. This was exposed at operation, and on inspecting it a number of yellowish nodules were seen on the surface; the kidney was removed and on section showed the typical picture of an ulcerative form of tuberculosis. Here we were dealing with a primary tuberculosis of the kidney with infection due to the colon bacillus superadded.

These cases well illustrate how a thorough and painstaking examination will often reveal the source of the temperature. The first of these cases is one in which there were absolutely no symptoms of renal calculi, but the presence of fever led to a thorough examination, the discovery of pus in the urine and a careful history showing that a calculus had passed fifteen years before. The *x*-ray was at once taken and proved the presence of two calculi in the left kidney.

If I have only succeeded in awakening interest in the subject of renal infection, especially to urge the general practitioner to consider the kidney as a possible source of fever or of other signs of septic infection, I shall feel myself amply rewarded. It is beyond the province of this paper to take up in detail the question of surgical procedure, such as the advantages of nephrotomy over nephrectomy. Personally, I believe that many of the milder cases of renal infection can be treated by non-operative measures, such as irrigation of the bladder and of the pelvis of the kidney; large quantities of diluents, especially alkaline waters; urinary antiseptics, and a bland diet. In the more severe forms this method of treatment will not be of much avail, and then the question arises as to whether it is sufficient to drain the kidney, puncturing the abscesses, or to remove it. In order to get the best results, I believe that we are justified, in case the clinical symptoms are not too severe, to try to pursue conservative methods, and I have accomplished much in this class of cases by simply puncturing the abscesses and draining these kidneys. If, however, the kidney is greatly enlarged and hopelessly destroyed, and we are quite certain from our use of functional methods of determining the working ability of the opposite kidney that the patient can live with one kidney, it is justifiable and indicated to remove the diseased organ.

A CONSIDERATION OF THE EXCRETORY DUCTS OF THE LIVER AND PANCREAS, AND THEIR RELATION TO DISEASES OF THESE ORGANS

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In the right upper half of the abdominal cavity there occur a number and diversity of pathologic lesions not exceeded by any other area of like size in the body.

Biliary and pancreatic cirrhosis, gall-stone disease, duodenal and pyloric affections constitute a very considerable number of the morbid conditions with which both the internist and the surgeon have to deal. It behooves us therefore to have a rather definite conception of the more minute anatomy of the organs of this vicinity.

The pathologist has given us an accurate and almost complete picture of the changes that take place in these tissues as the result of disease. No less important and exhaustive have been the researches of the physiologist, in determining the part played by these organs in the process of digestion and assimilation.

Of equal importance to the pathology and physiology in acquiring a broad conception as well as an accurate differentiation of the diagnosis of diseases of the liver and its ducts and of the pancreas is the knowledge of the anatomy and variation of relation which is well-nigh constantly present.

We are not in the habit of considering the anatomy *per se* in the etiology of the disease, but an exception must be made in the case of the organs under discussion.

The pancreas itself is perhaps subject to a wider variation in size and shape than any other glandular structure of the body, and the relation existing between the pancreas and its ducts and the common bile duct is also subject to a wide range of variation.

A dissection of so small a number as a half dozen specimens leads one to suspect that it would be very difficult to find a sufficiently constant relationship of these structures, to warrant one in giving a description of anatomical relations that could be fairly called normal. Especially is this true of the excretory ducts of the pancreas. In the half dozen dissections which I did there were no two alike.

EMBRYOLOGY

The altered pathology of the organs under discussion as the result of variations in anatomic relations is brought about in two ways: first, the number and patency of the excretory ducts of the pancreas; second, the relation of the common bile duct to the head of the pancreas.

In order to understand the variations which occur in the pancreatic ducts one must make reference to the origin and early embryologic development of the pancreas.

Stoss, who has made a careful study of the development of the pancreas in mammals, finds that it originates from three centers, one dorsal and two ventral, springing from the primitive gut at a time when this organ is a straight canal.

The dorsal bud arises at a point between the bile papilla and the stomach, while on the ventral surface of the intestine at either side of the hepatic duct appear two diverticula which later fuse to form the ventral rudiment of the pancreas, subsequently growing to meet the dorsal part. These unite to form a conglomerate organ with two ducts which at first are separate but later anastomose.

The greater part of the pancreas, namely, the body and tail and part of the head, develops from the primitive dorsal outgrowth, and is represented by the duct of Santorini, which enters the duodenum between the bile papilla and the stomach.

The duct of Wirsung enters the duodenum in common with the ductus choledochus below the duct of Santorini, and in the head of the gland represents the primitive ventral outgrowth.

As a rule, these ducts anatomose at an early period within the substance of the gland.

The part of the original dorsal duct, or the duct of Santorini, which lies between the duodenal orifice and the point of anastomosis with the ventral duct or the duct of Wirsung, partially atrophies so that it comes about that the latter duct usually affords an outlet for almost the entire pancreatic secretion.

Thus the uncertainty of development from these different centers of origin accounts for the wide variety present in the adult in the channels by which the secretions of the pancreas reach the intestines.

We have therefore three possibilities in the routes by which the pancreatic secretions reach the duodenum, as follows: first the duct of Wirsung, which is the duct resulting from the ventral outgrowth and which empties into the ampulla of Vater in common with the ductus choledochus from the liver; this is the usual way. In this case the duct of Santorini is either entirely absent or so atrophied as to be of no service. Second, the duct of Santorini, which is the duct for the original dorsal outgrowth, and which occasionally, but not often, remains patent and is the only excretory duct of the pancreas. When present this duct empties directly into the duodenum 1½ or 2 inches above the bile papilla and has no relation to the common bile duct. One of the dissected specimens shows a condition of this kind present. Third, both the duct of Wirsung and duct of Santorini may be present and patent and capable of acting as channels for pancreatic secretions. This condition is common, and, I might add, ideal for the best interest of the pancreas.

It would seem that Nature had not well guarded the interests of the pancreas in identifying its excretory duct so frequently and intimately with that of the liver.

When these two ducts enter the ampulla of Vater and have a common opening into the intestine, the conditions are ideal for pancreatic involvement following gall-stone disease.

A gall-stone small enough to pass down the common bile duct, but too large to gain exit through the bile papilla, will lodge in the ampulla of Vater, thus effectually blocking the bile from the intestine, but leaving an open channel up through the duct of Wirsung into the substance of the pancreas. This condition is believed to be responsible for a certain number of the cases of acute hemorrhagic pancreatitis.

It is not unlikely also that chronic catarrhal infections of the bile ducts are conveyed by contiguity of structure to the pancreas, resulting in interstitial fibrosis of this organ.

Acute hemorrhagic pancreatitis and interstitial fibrosis are, therefore, two conditions of the pancreas, which are, in a per cent. of cases, directly attributable to this anatomic relation.

Opie has further called attention to the fact that the second classification mentioned, namely,

the duct of Santorini, when the only excretory duct present, may also be a factor in producing a certain number of cases of acute hemorrhagic necrosis. He mentions this condition being present in one of his own cases and suggests as a possible explanation that, inasmuch as the duodenal opening of the duct of Santorini is not well guarded by folds of mucous membrane, it is not unlikely that duodenal contents may be forced into the body of the pancreas through the duct and its unguarded opening and setting up this unusual pathologic condition of hemorrhagic necrosis. He suggests that in all autopsied cases of this disease a careful dissection of the ducts be made to throw light on the etiology.

So much for the excretory ducts of the pancreas. We wish now, briefly, to call attention to the common bile duct, and how variations in its relation to the head of the pancreas often alter the march of pathologic progress. We find that the ductus choledochus either runs directly through the substance of the gland, so that there is pancreatic tissue all around it, or it lightly grooves the posterior surface of the head.

In about 62 per cent. of cases the common bile duct runs through the substance of the gland so that any swelling of the head of the gland will result in obstructive jaundice. It is not unlikely that this condition is responsible for a per cent. of obstructive lesions that result in a transient jaundice, and which are usually attributed to duodenal catarrh.

The variation in the clinical picture depending on this anatomic relationship was nicely illustrated by two cases, which I recently saw autopsied at the City Hospital. Both of these cases were alcoholics and both had practically identical pathologic conditions in the liver and pancreas, which were cirrhosis of the liver and interstitial fibrosis of the pancreas. There was one striking difference, however, in the clinical presentation of the case which might greatly confuse the diagnosis if one did not remember the anatomy. The difference was that one was deeply jaundiced, and the other had no jaundice. A dissection of the bile ducts showed that in the jaundiced case the common bile duct went through the substance of the gland, while in the other it only touched the pancreas lightly.

It must not therefore be forgotten that profound obstructive jaundice may be a symptom of cirrhosis of the liver, or perhaps more accurately, cirrhosis of the pancreas, which so frequently accompanies cirrhosis of the liver.

In those cases where the common bile duct runs through the head of the gland infections of the duct may involve all its coats and invade the pancreas, thus resulting in an enlargement in the head of the gland, which condition soon encroaches on the caliber of the common bile duct, thus establishing a vicious circle which can only be broken by establishing either a temporary or permanent fistula for the exit of the bile.

An anastomosis between the gall-bladder and the small intestine has been practiced with signal success in these cases. This is the condition that so frequently confronts the surgeon in attempting a cure of chronic gall-stone disease, and I daresay also accounts for an appreciable number of the unclosed fistulæ following gall-bladder drainage.

There is another disease whose etiology has been somewhat clouded in obscurity, but can, in a certain percentage of cases, be demonstrated both clinically and pathologically, to depend on anatomic relationship. I refer to diabetes mellitus. That the islands of Langerhans through an internal secretion control sugar metabolism is conceded by all physiologists. It has also been demonstrated that an interacinous fibrosis of the islands of Langerhans results in an increase of the connective tissue between the secreting cells of these structures and their subsequent atrophy. If this fibrosis is sufficiently severe a complete destruction of the islands results, carbohydrate metabolism is disturbed and the disease, diabetes mellitus, occurs.

In a series of ninety cases of diabetes mellitus Cecil demonstrated a fibrosis or other lesion of the islands of Langerhans in all but eleven of them, and Opie almost commits himself to the statement that every case of diabetes mellitus results from some pathologic condition, usually a fibrosis, of the islands of Langerhans.

But the ordinary type of chronic interstitial pancreatitis resulting from gall-stone disease and other toxic sources does not result, as a rule, in destruction of the islands of Langerhans. This type of pancreatitis is accompanied by an increase of the connective tissue between the lobules, and unless this fibrosis be of long standing and, of unusual quantity, the islands, which lie in the center of the lobules, escape, and diabetes does not ensue. This is the reason why more cases of chronic interstitial pancreatitis do not develop diabetes.

It will occasionally, however, be observed clinically that cases of long-standing gall-stone disease will develop diabetes, and it is no doubt true that a histologic examination of the pancreas in these cases would show a chronic interstitial pancreatitis which had progressed so far that a pressure atrophy had destroyed the islands of Langerhans.

In conclusion, therefore, I should say that pancreatic lesions are relatively frequent, especially in gall-stone disease, and that they add their quota to the clinical picture as well as being an important factor in treatment and prognosis, and that when not due to gall-stone disease their incidence will depend almost wholly on the presence of some one or the other of the anatomic combinations discussed.

And I wish to emphasize that a very large percentage of gall-stone disease is potentially, if not actually, complicated by pancreatic disease, a fact to be remembered both by the surgeon who is operating for the relief of this disease, and the internist who may advocate therapy other than surgery.

THE SAFETY ELEMENTS IN MODERN SURGERY *

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The science of surgery has progressed beyond that point where we estimate success by the number of patients who survive the operation. We used to concern ourselves about operative mortality. We reported, with much pride, so many operations with a certain percentage of deaths, and we congratulated ourselves that the deaths were so few. To-day we have entered on a new era in surgery — one in which we expect recovery in all deliberate operations, and in which we are not satisfied unless our patients are actually restored to a fair degree of health as well.

I like to classify my cases into deliberate and urgent surgery. In the former class I put all patients who are in fair general health; in the latter all whose vitality is greatly impaired by injury or disease.

In deliberate surgery, then, we expect and should have no deaths. In urgent surgery the mortality should be small, and in all cases we aim to achieve the Hippocratic concept—we hope and expect to restore the patient to health, and to do this quickly, safely, pleasantly.

There is no denying that the public has long entertained a horror of the scalpel. And this attitude has not been without reason. We are all familiar with postoperative suffering and tedious convalescence, often marked by disappointment for the surgeon and blasted hopes for the patient. I say this is not the picture of modern surgery. The lure of the spectacular in surgery is passing. Patients are asking to-day: "Can I be cured?" "Will I be long in the hospital?" "Will I be subjected to pain, vomiting and other discomforts about which I have heard?" "Are you sure, Doctor, that this operation will be the only one required?"

These and a hundred other questions must be met fairly and truthfully. They can be met and we can assure our patients that in deliberate surgery we can cure, and that urgent surgery promises more, much more, than formerly. We can assure them not only of safety, but that surgery has been shorn of much of its cruelty. Surgery to-day is humane; it is in the true sense conservative; it is successful without being savage.

From the dawn of Listerism to the present is only a short span as measured by the passing of years, but in the mete of scientific achievement it is a far cry.

I need not dwell upon the early scenes of the operating-rooms — horror chambers for the patients, and bloody spectacles for the onlookers. In those days the operator wore a long coat, stiff with the blood of many operations; in a buttonhole he carried skeins of thread from which he pulled sutures and ligatures as needed. He brandished a long carving knife, while strong-armed assistants held his writhing victims, and he was noted for the rapidity and dexterity with which he could amputate a leg or an arm, or relieve the patient of a troublesome stone.

Happily for us these details are interesting only as matters of history. As every physician knows, the emancipation of surgery began when Morton gave us anesthesia, and Lister proclaimed his theory of wound sepsis.

Passing rapidly, then, over a period of antisepsis (when it was thought that all wounds must of necessity suppurate, and legions of antiseptics were brought forth to combat infection); dismissing with a mere reference the evolutionary period which gradually brought us to a realization of the true value of asepsis, we have arrived then at the beginning of what might be termed in a more fitting sense modern surgery.

With perfection of aseptic technic, surgery began to assume tremendous importance. The various cavities of the body were now opened at will: one after another new fields of operative promise were explored and conquered, until to-day there is scarcely a limit to the possibilities of this method of treatment, so far as exploration is concerned.

The mortality of former years was due to sepsis. The advent of asepsis has rendered the practice safe. Few lives are sacrificed to-day

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from this cause; and yet in this very safety lies a new element of hazard, viz., the tendency to operate hastily; without due consideration for ultimate results; with an imperfect diagnosis; with poor preparation, and sometimes with indifferent postoperative care.

The first important element of safety, then, is a thorough preparation upon the part of the surgeon. This implies so much that I might almost say it embraces all that is to be said upon the subject. It means an ability to arrive at a correct diagnosis; this contemplates a thorough education, including frequent postgraduate study, plus years of experience. Even then a diagnosis is never reliable unless a complete and comprehensive physical examination is made, and interpreted by the aid of laboratory investigations. In other words, thoroughness in diagnosis is the first essential to safe surgery.

In this age such procedure calls for organized cooperation between the surgeon and his colleagues — the family physician, the pathologist, the analyst, the radiographer, the internist, and even frequent consultations with one or more of the other specialists. If the Mayos owe their phenomenal success to one thing more than to another it is to organized cooperation in the matter of diagnosis. Gentlemen, this is an age of cooperation. Specialization is necessary; but specialization without cooperation means chaos; with it, order and success. In surgery this element of cooperation does not stop, either, with diagnosis. It extends to every phase of treatment — preparatory, operative and postoperative. A good surgeon is only capable for his best efforts when he has a well-organized staff of assistants who are dependable and loyal. Such a staff can be had only in a well-organized hospital. The surgeon, who alone is held responsible, should be supreme in authority, even to the choice of the anesthetic and its method of administration.

All of the elements of success really are bound up in the personality of the operator, and this personality extends to the minutest detail of his work. The same thoroughness then must be exercised in treatment as in diagnosis.

Treatment really begins with the preparation of the patient, and here the practice has undergone a marked change in the last few years.

No longer do we purge our patients in preparation Rarely is a laxative even necessary. In case of stomach operations a short period of fasting is desirable, otherwise deliberate operative cases do quite as well with no preparation as with it. If a laxative is desired, castor oil, administered the day before operation, is the best thing to use. Flushings should be given where time permits. As to the field of operation, a preliminary general bath is desirable. If time permits the field may be washed and shaved the day preceding and a dry sterile dressing applied. If immediate work is to be done, the skin may be dry-shaved and painted with a solution of tincture of iodin and alcohol, equal parts. This is all the preparation the skin needs at the time of operation, whether previously prepared or not. If the skin is dirty, the dirt may best be first removed with gasoline. Simplicity is quite desirable for the best results.

As a routine measure, morphin with atropin, or morphin with scopolamin should be given a half hour before the operation. It calms the patient, lessens the troublesome secretions caused by ether, and prevents much of the pain and discomfort incident to the postoperative period.

This simple preparation applies to ordinary deliberate surgery. Special conditions call for selected variations from this routine. For instance, mouth or stomach operations should be preceded by oral cleansing. This serves to illustrate other special methods.

In urgent surgery we are confronted by quite another situation. Here special knowledge and skill count. The patient suffering from extreme shock and exhaustion may be allowed to recoup, or tided over by transfusion of blood. The choice of an anesthetic, even, may change a hazard into safety.

The nervous patient, and particularly the toxic patient, requires the exercise of tact and sympathy in the pre-operative period. Crile has shown that fear produces morbid changes in the central ganglion cells — that fear may even kill. He regards fear as one of the large elements contributing to the extreme hazard which is known to exist in many cases of Graves' disease. He has also devised a system, preparatory and operative, calculated to prevent serious results from fright. An adherence to his methods certainly gives the minimum of risk to the surgery of this disease.

Anesthesia should always be in the hands of one trained to its administration. Women make good anesthetists, with adequate training, and some of them do well to choose it as a profession.

Concerning general anesthesia, the choice in this country has come to center on ether because of its safety, although nitrous oxid has not come into such general use as it deserves. There are some factors which have militated against the more general use of the latter — it is more expensive; requires expensive apparatus and special skill for its use; it increases venous congestion, and it does not produce complete muscular relax-

ation. In the experience of Crile and Teter it has been used more than 20,000 times without a death. Its safety, therefore, coupled with the fact that it produces comparatively little shock and nausea, outweigh the undesirable features mentioned, and it should be used in properly selected cases.

Local anesthesia, by infiltration or nerve blocking, is also deserving of a wide application in this country. In Europe it is extensively used, not only in minor cases but in amputations, removal of tumors, herniotomy and in thyroidectomy. Bier's venous anesthesia is also useful in amputations and operations on extremities.

Concerning operative technic I will only say that simplicity and rapidity are elements of safety next in importance to perfect asepsis. Here, perfect cooperation is essential to the best results. Any further consideration of this phase of surgery would lead to infinite discussion of detail. I cannot refrain, however, from a few words concerning drainage. The first thing I wish to emphasize is that gauze will not drain unless it is wet and kept wet. Even then, the outer end should be lower than the inner, to get the siphon effect. I employ it for packing but seldom for drainage.

Rubber tubes are the best and two together act better than one. Try it and you will see the reason. Drainage is often kept up too long. I employ it far less often, and for shorter periods, than formerly.

I can hardly leave this phase of the subject either, without reference to one of the more recent achievements in technic, viz., the invasion of the chest. It is now possible, by the aid of either positive or negative pressure, to operate on the heart, lungs, esophagus, bronchi and other intrathoracic structures. We owe much to Sauerbruch for pioneer work in this field. My preference in methods is for positive intrathoracic pressure.

Much better results may be had in many fractures, too, since the advent of simplicity in dealing with the open variety, and with the aid of open surgery in selected cases.

As to postoperative care, it is quite as important as either of the preceding phases in the attainment of ultimate results. I consider Murphy's proctoclysis and Fowler's position as two of the greatest contributions to urgent surgery. The former is an excellent routine measure also in deliberate operations. A correct technic here is quite essential to success.

Water is the most desirable thing to administer after an operation. It should be given in this way (as a physiologic salt solution) until the patient is capable of taking it by mouth in adequate quantities, and proctoclysis then discontinued.

Morphin, after operation, diminishes the effect of shock, and should be given as required for twenty-four to forty-eight hours.

The bowels need not be disturbed ordinarily for three days, and then moved with castor oil.

This by no means exhausts the safety elements in surgery. If it serves to illustrate my opening thought, that we must seek to restore the patient; that rapid, safe and pleasant results are within the domain of modern surgery; and finally that such an attainment does depend largely on correct methods — if these facts have been emphasized, then I have not written in vain.

THE QUESTION OF A LIBERAL DIET IN DISEASE *

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It is generally agreed that there has been less progress made along the line of dietetics than any other branch of medical science. Dietetics has been very largely looked on as a minor part of treatment. Very little serious study has been given to the subject until recent years. Therefore this has been a favorite playground for the faddists. The old saw "when the cat is away, the mice will play" is very applicable in this case. However, it does seem evident that the time is now ripe for the "cat to come back."

Dr. James E. Davis in the *Minnesota State Journal*, December, 1911, says: "There is probably no subject that the majority of practitioners must so frequently teach and practice as dietetics, and when compared with other branch subjects of medicine there can be no question that it is of greatest importance." He says "the correct use of food involves more science than does drug therapy."

Our knowledge of food and nutrition has always been more or less empirical. We advise a starvation diet in disease, principally because we have been taught that regimen long years ago. Of recent times there has been a great deal of research work done along this line which has caused us to take a more common sense view of the subject. Physicians have in times past allowed their patients to die for want of water, air and food. To-day there is hardly a disease that is not treated with a plentiful supply of fresh air, and water is given in abundance in

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almost all febrile disease, but it remains to be seen what we will do about increasing the sick man's daily bread. Nevertheless, the straws point toward a more liberal diet for the future.

While there may not have been a great deal written on the question of a generous diet, the idea is by no means a new one. Dr. H. A. Hare, professor of therapeutics in Jefferson Medical College, and editor of the *Therapeutic Gazette*, in his writings has for the past fifteen years advocated a generous diet in disease. One objection that has been raised against feeding a generous diet to the sick is that the digestive system is impaired, especially in fevers, where there is a diminished secretion of the digestive juices. Nicholas, in the July *American Journal of the Medical Sciences*, showed that, from his investigation concerning patients suffering with various forms of acute febrile maladies such as typhoid fever, relapsus fever, tuberculosis, etc., the average reduction of digestion during fever does not amount to more than 5 or 10 per cent.; and he further believes that the diminution in digestive activity is a negligible factor. It seems from this that the digestion is not very bad in fevers. This idea of impaired digestion is based on the teachings of long ago when it was thought best to starve out the disease; so the saying "feed a cold and starve a fever."

It is in prolonged fevers, especially typhoid, that a liberal diet is needed. Rodgers, in the November, 1910, *West Virginia Medical Journal*, says: "More typhoids die either directly or indirectly from starvation than from all other causes together. There is no specific for typhoid, so we are compelled to depend on the resisting power of the patient to overcome the disease. The question is, are we going to help overcome the germs or are we going to let the germs overcome our patient? If we are going to do the former, then we must furnish a diet easy of digestion, rich in carbohydrates and a sufficient amount of protein to replace the destruction and hold our patients in a nitrogenous equilibrium. If the latter, cut off your nourishment and help to weaken the individual resistance and you have already done it."

The evidence in favor of a generous diet in typhoid is very convincing. Hare says: "Those who have resorted to the administration of a fairly liberal amount of food to patients suffering with typhoid fever have almost universally been in accord to the effect, and the evil symptoms of the disease during its progress are certainly not increased, but if anything modified for better, and, furthermore, have found that the patient passes through the stage of convalescence more rapidly than a patient who has been on a lean diet. He often fails to have the profound nervous exhaustion and staggering gait which are so commonly met with in patients who have had nothing but milk and broth diet. Indeed, the individual who used to be met with so frequently in a stage of profound emaciation after a long attack of typhoid is now comparatively rarely seen if his feeding has been adequate."

There is one disease, however, in which the pendulum has swung too far in the direction of generous feeding. This is in tuberculosis. Men have not stopped with a liberal diet, but they adopted the "forced feeding" idea as a routine. There is just as much harm — or more — in overfeeding as in underfeeding. Rayevsky (*New York Medical Journal*, May 14, 1911) observes: "This disease debilitates every organ in the body but notably that of the digestion; the result is malnutrition and general wasting. The earliest treatment by forced feeding grew out of the erroneous conception of the disease as one primarily of nutrition. Our feeding cannot arrest the disease; on the contrary, it may do much harm. It will overburden the already debilitated digestive organs, or if the digestive organs prove equal to the added strain, the heart may fail to do the increased work or the kidneys become overworked. While forced feeding is contra-indicated in the light of present investigations, yet there is no disease that needs a liberal diet more than that of tuberculosis."

It has been pointed out that even though we may give a generous diet in such diseases as typhoid fever and tuberculosis with perfect impunity, nevertheless we will commit a fatal error by giving it in nutritional diseases, such as diabetes. This is another instance where there is a great need of a closer study of food principles. It is a well-known fact that in diabetes the patient needs a diet poor in sugars and starches, but rich in fats and proteins. It would seem very unreasonable to cut down the whole intake of food to a minimum just because the carbohydrates must be omitted. Experience has taught that diabetic patients generally do better on a liberal supply of food other than the carbohydrates, and in some cases it is wise to admit to the diet list even a certain amount of starches and sugars.

Therefore it can be seen from what has been said that a far more liberal amount of food is needed in disease than is usually given. We are a nation of large eaters, our systems are accustomed to a liberal diet in health, hence more food is needed in disease to keep up the body nourishment than would otherwise be required. It is generally agreed that we eat too much in health, yet it does not follow that we should eat

nothing when we are sick. It has been shown by experiment that the beef teas, beef broths and highly extolled meat extracts are absolutely worthless, so far as food value is concerned. Cases have been reported where the patients lived longer on a water diet than those who were given the broths and extracts. The sick should be given some real food during the progress of the disease; he should be fed as liberally as his disease will allow. If one kind of food is contra-indicated, another kind may be given with great advantage. While a man's ailment may not allow him to eat meat, that does not say that he may not eat plenty of vegetables; or he may not be able to eat butter or an abundance of fruit; but by all means eat plentifully the kind of food that is indicated.

The stand-patters on this diet question tell us that we are taking a great risk in giving much food to the sick; that we may do damages that may cause the death of our patient. Certainly; we admit this; but does not the same thing hold true in drug therapy? Do we not watch very carefully for the physiologic effects of the iodids or the cumulative effect of digitalis? If we study our foods and their effects on the body during diseases, just the same as we do that of drugs, we will not do harm by giving a liberal diet, for we can detect the untoward effects before they have progressed very far.

BACILLARY DYSENTERY IN CHILDREN: REPORT OF AN EPIDEMIC

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It is difficult to obtain accurate figures in regard to infant mortality. In not more than one-half of the United States is there any pretention to accurate reporting of births and deaths. Deaths are much more fully reported than births, Holt stating that at least 15 per cent. of births in New York City are not reported. Hence the difficulty of obtaining reliable figures of the actual numbers of deaths among infants each year and the impossibility of determining the relative proportion of children who die in the first year of life. In 1908 nearly one-fifth of all the deaths occurring in the registration area were those of infants under 1 year of age and over one-fourth were of children less than 5 years old. "The brute force of the figures representing the actual number of deaths is even more impressive." More than one-eighth of a million deaths — in actual numbers, 136,432 deaths — of babies under 1 year and nearly 200,000 of children under 5 years of age occurred in 1908 in about one-half the total population of the United States.[1] The percentages for 1909 are the same although the actual number of deaths was somewhat larger.

Holt[2] estimates that not more than 25 per cent. of the deaths of infants are in the group of hopeless cases such as premature birth, malformation of vital organs and unavoidable accidents at birth. The remaining 75 per cent. are more or less completely preventable. According to Prof. Irving Fisher,[3] of all the diseases of infancy, i. e., under 1 year of age, 47 per cent. may be prevented, and of the diseases of childhood, i. e., from 2 to 8 years of age, 67 per cent. may be prevented on the basis of our present knowledge of sanitary measures. This would mean the saving of from 100,000 to 200,000 lives annually in the entire United States.

Among the causes of death among young children the diarrheal diseases stand preeminent. Indeed, Holt declares that these diseases are so important that they practically control the curve of infant mortality. Diarrheas occur at all ages, but are of vastly greater importance as causes of death in infancy and early childhood than at any other period of life. Dunn's classification[4] of the diarrheal diseases of infancy is perhaps the best and is as follows:

1. Acute nervous diarrhea characterized by loose stools of normal color and odor without abnormal constituents.

2. Indigestion diarrheas of which there are two forms: (*a*) Irritative diarrhea. Acute intestinal indigestion of the irritative type, characterized by the absence of persistent fever and by the presence of curds and undigested masses in the discharges. (*b*) Fermental diarrhea. Acute intestinal indigestion of the fermental type, characterized by the absence of fever and by green stools of foul and sour odor. The stools may be so strongly acid as to cause severe excoriation of the buttocks.

3. Infectious diarrhea, characterized by the existence and persistence of fever and by the tendency toward early signs of ileocolitis as shown by the presence of blood and excess of mucus in the discharges. To this group belongs infantile dysentery.

By far the most fatal form of diarrhea is the infectious type. This occurs with such frequency in the summer months that it is usually spoken of

1. Report of Census Office, Mortality Statistics, 1908, p. 21.
2. Holt: Infant Mortality and Its Reduction, Especially in New York City, Jour. Am. Med. Assn., 1910, liv, 682.
3. National Vitality, Its Wastes and Conservation, in Report of the National Conservation Commission.
4. Arch. Pediat., 1905, xxii, 401.

as summer diarrhea. The disease is very much more common among bottle-fed babies and among the children of the poor than among those of any other class. Among 1,000 breast-fed babies in Liverpool, Hope[5] found twenty deaths; among the same number of bottle-fed babies, 300 deaths. Of 1,000 fatal cases of diarrheal diseases investigated by the New York City Board of Health, only ninety were entirely breast-fed. Clay[5] estimated that in England the mortality of infants in the first year was 10 per cent. among the aristocracy, 21 per cent. among the middle class, and 32 per cent. among the poor. Holle[5] found that of 170 deaths from acute intestinal disease, 161 were among infants of the poor and nine among those of the rich.

Of the infectious diarrheas by far the most frequent and most fatal is epidemic dysentery. This is caused by a definite organism, the *Bacillus dysenteriæ*, first discovered in 1898 by Shiga[6] of Japan. Two years later Flexner and others isolated similar organisms from the stools of dysentery patients in Manila. In 1902 and 1903 workers at the Rockefeller Institute made extensive studies of the diarrheal diseases of infancy in the United States with special reference to the bacillus of dysentery.[7] Of 412 cases examined in 1903, 279, or 63.2 per cent., showed *B. dysenteriæ*. The success in isolating this organism from the stools of dysentery patients seems to depend very much on the skill and experience of the investigators, on the methods used, and on the condition in which the material can be obtained. Duval and Shorer obtained 94 per cent. positives and Kendall 93.5 per cent. Kruse succeeded in isolating similar organisms from cases of dysentery in Germany. Hence there is no longer any question as to the causative organism in bacillary or epidemic dysentery.

The various strains of *B. dysenteriæ* isolated in various parts of the world resemble each other very closely. They differ only in their powers to ferment the various sugars, differences which need not be detailed here. The most frequently found types are the Shiga and the Flexner types, the latter being more common in this country. The Shiga type produces a very powerful soluble toxin and carries in its body a strong intracellular or endotoxin. The toxin of the Flexner type is chiefly intracellular. The soluble toxin consists of two components: one has a selective action on the central nervous system, causing paralysis with hemorrhages in the cord, and the other causes the dysenteric changes in the bowel.

Knox and Shorer[8] studied seventy-four cases of infantile diarrhea very thoroughly with the following results: "In forty-two, or 58.3 per cent., some variety of the dysentery bacillus was found corresponding to one of the recognized types either in the stools or in the intestinal tract at necropsy. In these forty-two cases no streptococci or organisms other than dysentery bacilli agglutinating with the blood of the patient were isolated. In eleven additional cases, or 14.8 per cent. of the whole number, dysentery bacilli were present in association with pathogenic streptococci. In six cases, or 8.2 per cent., *Streptococcus pyogenes* was the only pathogenic organism isolated. Streptococci were therefore found altogether in seventeen cases, or 22.9 per cent. of the series."

Hence streptococci may of themselves occasionally cause severe and even fatal diarrhea in children. In a large number of cases, however, it occurs in conjunction with the *B. dysenteriæ* and undoubtedly adds to the seriousness of the infection. It is known, further, that as long as conditions in the gastro-intestinal tract are normal, *B. coli* is a regular and harmless, if not a useful inhabitant of the human intestine. But with change of conditions this organism may become pathogenic. Hence in addition to *B. dysenteriæ*, in cases of epidemic dysentery we frequently, if not usually have to contend with the toxic and irritative action of streptococci and an aroused *B. coli*.

Aside from its importance as a destroyer of infant life, bacillary dysentery demands attention from public health officials because it frequently occurs in the form of epidemics. It affects not only children but adults also. It is the usual form met with in institutional epidemics. For instance, at the Danvers State (Insane) Hospital, Massachusetts, in 1908, 156 cases of dysentery occurred among 1,592 inmates. Dysentery bacilli of the Shiga type were found in fourteen out of seventeen stools examined.[9]

Practically all epidemics of dysentery occur in the summer months. A curve showing the incidence of cases of dysentery by weeks follows the temperature curve very closely, a few days of cooler weather in the midst of a hot summer usually resulting in a noticeable reduction in the number of cases occurring. The indigestion diarrheas are also more frequent in summer, probably owing to some functional disturbance either of the nervous system or of digestion produced by the severe heat. The influence of excessive summer heat on the incidence of bacillary dysentery is probably exerted in two ways: (1) by producing conditions in the intestine favorable to the occurrence of infection; and (2) by furnishing

5. Quoted by Holt, Loc. cit.
6. Centralbl. f. Bakt., 1898, vols. xxiii and xxiv.
7. Studies from the Rockefeller Institute, 1904, vol. ii.
8. Reports of Johns Hopkins Hospital, 1910, xv, 1.
9. Boston Med. and Surg. Jour., 1909, clxi, 679-714.

conditions conducive to the continued viability if not the actual multiplication of the bacilli outside the body.

The possible sources of infection to be thought of in any epidemic are infected food, water and milk, flies and "carriers." The various ways in which food, water and milk may become contaminated and the ease with which flies may carry infection are too well known to require discussion.

The question of infection carriers, however, has only recently received the attention it deserves. These are the real sources of the infection of water, milk and flies. They furnish the bacilli a comfortable habitation during the cold winter months and discharge them in great numbers in the summer to carry death to some victims and make "carriers" of others who recover.

Mayer[10] found one patient with a chronic diarrhea who discharged dysentery bacilli for eight months. The same author found that among twenty-five healthy carriers who had not suffered from diarrhea, the longest period over which any one of them discharged dysentery bacilli was thirty days. Numerous other cases of dysentery bacilli carriers have been reported. "The maintenance of sporadic and epidemic bacillary dysentery is undoubtedly accomplished by bacillus carriers, who may be (1) apparently healthy individuals, (2) persons suffering from very mild dysentery, or (3) convalescents."

The problem of bacilli carriers and the manner in which they spread disease has been more thoroughly studied in connection with typhoid fever than with any other disease. The discharges of a typhoid or dysentery bacilli carrier are frequently loaded with these organisms and can cause contamination of milk, water and flies in the same manner and practically to the same extent as the excretions of patients actually suffering from these diseases. About three years ago the writer had occasion to examine the literature on the subject of typhoid bacilli carriers.[11] Of fifty proved cases reported twenty-one were known to have caused the disease in others. Almost every one of these were either dairy workers or cooks. Hence those carriers whose occupation involves the handling of food products are the most dangerous to others.

Between the middle of June and the middle of August, 1911, an epidemic of dysentery occurred in the southeast portion of Terre Haute. The district in which the cases occurred extended as far east as Twelfth Street and as far north as Franklin Avenue. One-half of the cases were between South First Street and Prairieton Avenue below Grant Avenue in Crumbaarh Addition. No definite data were secured concerning the exact sanitary conditions in each family in which there was a dysentery patient. In general, however, these families lived in houses with no sewer connections and either not screened at all or only indifferently well screened, used water from wells, and the majority used condensed milk. In the two homes which I visited on July 27 with Dr. J. C. Bohn, flies were present in great numbers, especially in the house that was not screened.

An attempt was made to determine the type of infection and to discover its origin. The bacteriologic work was done under great disadvantage because of the impossibility of securing suitable material. The material obtained consisted of contaminated stools from two of Dr. Bohn's patients, the washings from an agar plate made two days before by Dr. Walker Schell from the stool of one of Dr. C. M. Smick's patients and intestinal contents obtained at an autopsy on the body of a child already embalmed. In Dr. Schell's material streptococci were the only pathogenic bacteria found. From one of the other cultures an organism was isolated which corresponded very closely to the Flexner type of *B. dysenteriæ*. It was impossible to secure any other material for bacteriologic study.

From the data secured, the most probable source of the infection appears to have been contaminated food. It seems likely that one or more bacilli carriers in this district furnished the infectious material which was carried by flies and deposited on food. The weather conditions were favorable to the growth of any organism in these poor homes where ice was probably too much of a luxury to be had in sufficient quantities to properly preserve food.

Through the courtesy of Dr. J. C. Bohn, Dr. W. R. Mattox and Dr. C. M. Smick, I have secured data concerning thirty-four cases. Among these there were twelve deaths, 35.3 per cent. All the deaths occurred in children under 3 years old. (See Table 1.) The only case under 1 year was fatal. There were sixteen cases among children from 1 to 3 years of age with eleven deaths, 69 per cent. There were thirteen cases in children from 4 to 10, and four cases in adults of 25 to 60 years old, none of which were fatal.

TABLE 1

	Cases.			Deaths			
Age.	M.	F.	T.	M.	F.	T.	Per Cent.
Under 1 year....	1	0	1	1	0	1	100
1 to 3 years.....	7	9	16	5	6	11	69
4 to 10 years....	4	9	13	0	0	0	0
25 years and up..	1	3	4	0	0	0	0
	13	21	34	6	6	12	35.3

The temperature curve for this period was obtained from the reports of the local weather

10. München. med. Wchnschr., 1910, S. 2566; abstr. in Centralbl. f. Bakt., Abt. i, Ref. 1911, xlix, 264.
11. Am. Jour. Med. Sc., August, 1910.

bureau station as given in the Terre Haute *Star*. The greatest number of deaths in any one week (four deaths) occurred between July 2 to 8, when the temperature for four days in succession ranged from 100 to 103 F. The largest number of cases (eight) reported in one week was from July 9 to 15, immediately following the week of unusually hot weather.

All of the cases showed blood and mucus in the stools. In five cases the blood and mucus appeared on the first day; in sixteen on the second; in ten on the third; and in three on the fourth day. The stools ranged from three to twenty-five per day in number. The temperature ranged from normal to 104 F. Only five cases showed a temperature of 102 or over and all were fatal. Four fatal cases showed a temperature of 99.5 to 100 and three fatal cases were said to have had normal temperatures.

The majority of the deaths (eight in number) occurred before the sixth day of the disease; two occurred on the eleventh and twelfth days, respectively.

The degree of toxemia varied greatly. In twenty cases with two deaths, it was said to be slight; in eight cases with six deaths, severe or "marked"; in five cases with four deaths, very severe. "Brain symptoms" or convulsions were present in six cases.

One remarkable feature of the epidemic was the almost uniform absence of tenesmus and abdominal tenderness. In seven cases with one death abdominal tenderness was absent; in twenty-two cases with ten deaths it was slight; in three cases with one death it was "marked." In six cases with no deaths tenesmus was absent; in seventeen cases with five deaths it was slight; in seven cases with four deaths it was severe, and in three cases, all fatal, tenesmus was very severe.

The absence or very slight degree of tenesmus is accounted for by the pathologic conditions found in the case which came to autopsy. This was a child twenty months old who died on the eleventh day of the disease. There was a very high degree of toxemia with very slight abdominal tenderness and tenesmus. The onset in this case was with diarrhea. Blood appeared in the stools on the second day. The temperature did not range much above normal.

Only the abdominal organs were examined at autopsy. The mesenteric and retroperitoneal glands were the size of beans. The spleen was only slightly enlarged. The small intestine was practically empty. The duodenum and jejunum showed nothing abnormal. Peyer's patches and the solitary lymph-nodes of the ileum were somewhat swollen but not ulcerated. Throughout the entire length of the colon there were many very superficial ulcers. These were most numerous in the cecum and descending colon and sigmoid. The rectum was relatively very slightly involved, a fact which accounts for the slight degree of tenesmus.

Microscopically the liver and kidneys showed the usual parenchymatous changes found in severe toxemias; namely, fatty changes in the former and a mild grade of parenchymatous nephritis in the latter affecting chiefly the convoluted tubules.

The treatment of dysentery, especially in children, has not added much to the prestige of physicians. Many different remedies have been tried from large doses of bismuth by mouth to silver nitrate injections into the rectum, all of which have been attended with only indifferent success. Recently Kendall[12] has approached the subject of treatment from a new point of view. His ideas are based on a more accurate knowledge acquired within the last few years of the bacteriology of the gastro-intestinal tract.

The distribution of the different varieties of normal bacteria in the human intestine is quite typical especially in infants. In the normal small intestine *B. coli* and *B. lactis aerogenes* are the predominating organisms; in the cecum, *B. coli* and *B. bifidus;* in the colon and rectum *B. bifidus* and *B. acidophilus*. These bacteria form acids and thus render the intestinal contents an unsuitable medium for the growth of putrefactive and most pathogenic organisms. The distribution in the intestinal tract of these normal bacteria is probably determined by the action of the intestinal secretions, and by the presence of oxygen in the upper intestine and the absence of it in the lower part.[13] The important thing is that each portion of the infant's intestine has in its normal bacterial flora an efficient means of protection against the invasion of pathogenic organisms. The bacterial flora of the adult intestine is much more varied than that of the infant, but it tends to serve the same purpose of protection.

A rational method of combating an intestinal infection would seem to be to again render effective the protective power of the normal bacterial flora. Under the usual manner of treatment the patient is given an initial purge and all food withheld for from twenty-four to forty-eight hours. During this period of starvation the intestinal contents consist of an exudate of mucus and proteid matter thrown off by the mucous

12. Boston Med. and Surg. Jour., 1911, vol. clxiv; see also Jour. Med. Research, 1911, vol. xxiv.
13. Meara: Arch. Pediat., 1910, xxvii.

membrane of the intestine. The proteid portion of this exudate is the most important portion. It is known that those bacteria which form powerful toxins produce then from the proteid in the medium in which they grow. As long ago as 1899 Theobald Smith[14] discovered that if diphtheria bacilli are grown in broth containing not more than 0.2 per cent. of sugar, large quantities of very powerful toxins are produced, but if a higher percentage of sugar is added to the broth the production of toxin is reduced to a minimum. The same is true of the production of toxin by the tetanus bacillus. *B. coli* will produce indol in sugar-free proteid mediums, but not in mediums that contain sugar. If *B. coli* is grown in sugar-free bouillon for several days a decidedly foul odor will develop, due to the presence of putrefactive products: but if grown in bouillon containing 1 per cent. sugar the odor produced is not disagreeable and the medium is found to contain only products of fermentation.

To summarize, bacteria acting respectively on carbohydrate and protein produce from the former fermentative (non-toxic) products and from the latter putrefactive (toxic) substances. The fermentative (or toxin non-producing) process takes precedence over the putrefactive (toxin-producing) if both carbohydrate and protein are simultaneously present in the medium in which the bacteria are growing. The carbohydrate, in other words, is attacked and must be used up before the protein is acted on to any extent. The products of protein putrefaction are strongly toxic in the cases of diphtheria and tetanus bacilli; hence the addition of utilizable sugar to a protein medium suited to the development of these bacteria would be indicated if one wished to inhibit or prevent toxin production.[15]

The same principle appears to be applicable to conditions in dysentery. The bacteria present are living on the intestinal secretions which contain protein matter with no available carbohydrate. The activity of the dysenteric flora (including *B. dysenteriæ*, *B. coli* and streptococci) under such conditions must be essentially putrefactive, and the products decidedly toxic, especially in the case of infections with the Shiga variety of *B. dysenteriæ*.

Realizing these conditions, Kendall advocates feeding such patients carbohydrates from the start, or at least immediately after the initial purge. This, theoretically, accomplishes three things: (1) It furnishes a readily fermentable carbohydrate to change the character of the bacterial activity in the alimentary tract from the proteolytic; putrefactive or toxin-producing type to the fermentative or toxin non-producing type; (2) the products of fermentation are acids which tend to render the intestinal contents unsuited to the growth of dysentery bacilli; and (3) it furnishes nourishment to the patient. Lactose is the sugar most suited to this purpose, and is given in 5 per cent. solution, in small amounts at frequent intervals. This method of treatment has given favorable results for two summers at the Boston Floating Hospital for Sick Babies. It is needless to say that this form of treatment is absolutely contra-indicated in the fermental diarrheas.

The epidemic of diarrheal diseases in Terre Haute, though small, teaches important lessons. In the first place it shows that the sanitary conditions in the part of the city affected are very bad. While children were most affected in this epidemic, adults did not escape. Newsholme[16] has declared that "infant mortality is the most sensitive index we possess of social welfare and of sanitary administration, especially under urban conditions. A heavy infant mortality implies a heavier death-rate up to 5 years of age: and right up to adult life the districts suffering from a heavy child mortality have higher death-rates than the districts whose infant mortality is low."

On the other hand, this epidemic was probably due almost as much to ignorance and poverty of the parents as to the bad sanitary conditions. People living as these families do know nothing of the proper hygiene of infancy and childhood. One feature of the epidemic, however, stands out with unusual prominence, namely, that there was only one patient under 1 year of age. This probably means that the mothers in this district nurse their babies. It was only those children who had been partially or entirely weaned that became infected. These mothers need some instruction in the simple principles of hygiene.

In conclusion, attention has been called to the tremendous financial and social loss in the United States from the loss of infant life, and to the fact that at least 50 per cent. of this loss is preventable by the rational application of knowledge we now have concerning sanitation. It was shown that diarrheal diseases practically control the curve of infant death-rate. A local epidemic of dysentery was reported. Finally some of the newer ideas in regard to the treatment of infantile dysentery were given, ideas which appear sound theoretically and which have given reasonably good results when tried out in practice.

14. Jour. Exper. Med., 1899, iv, 373.
15. Kendall: Loc. cit.
16. Thirty-Ninth Annual Report of the Local Government Board of London, 1909-10. Quoted in Bulletin 108, Bureau of Census, Motality Statistics, 1909.

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EDITORIALS

THE PRESENT STATUS OF ANESTHESIA

At the recent session of the American Medical Association, held at Atlantic City, June 4-7, the Committee on Anesthesia gave a report which should be widely read and carefully considered by all those who are interested in improving the conditions under which anesthesia is induced. As stated in the report, the functions of this committee are to gather and analyze data regarding anesthetics, to initiate and stimulate investigation, and to make such recommendations to the House of Delegates and to the members of the American Medical Association generally as a careful consideration of the present status of anesthesia may suggest.

The committee very justly takes the ground that anesthetists should be recognized as specialists on a par in importance and quality of their work with those in other branches. In all of our larger cities a certain number of men of a particular aptitude and interest are devoting all or a greater part of their time to the administration of anesthetics, and the committee believes that this practice should be in every way encouraged, but the administration of anesthetics by those whose work has been almost entirely in other lines should be severely discouraged. It should be recognized that the welfare of the patient demands skill on the part of the anesthetist no less than on that of the surgeon, and the anesthesia should be in charge of those whose principal aim is not to see as much of the operation as possible but to maintain anesthesia in such a manner as to bring the patient through with the least possible loss of vitality. Every hospital, certainly every large hospital, should have as a regular member of its staff an attending anesthetist whose authority in his special department should be as complete as that of the attending physician or surgeon in their fields.

In connection with the report of the committee, attention is called to the joint symposium on anesthesia which formed the programs for one meeting of the sections on Pathology and on Pharmacology, and to the important step toward the recognition of anesthesia as a special field of practice and investigation which has been taken in the organization of the New York Society of Anesthetists. The committee concludes its report with certain specific recommendations which we believe to be worthy of reproduction entire.

1. The use of chloroform as the anesthetic for major operations is no longer justifiable. Scientific investigation and clinical experience agree in demonstrating that necrosis of the liver ("delayed chloroform poisoning") follows in a by no means inconsiderable percentage of cases. The mode of causation of this sequel is unknown. There are therefore no precautions that can be intelligently taken against it. Accordingly the surgeon whose patient dies in this manner a day or two after the operation must face the responsibility of having knowingly taken an unnecessary chance — and lost. We see no reason to believe that in respect to toxicity there is more than a slight quantitative difference between chloroform alone and such chloroform mixtures as A. C. E., anesthol, etc.

2. For minor operations also the use of chloroform should cease. In general it may advantageously be replaced by nitrous oxid, or nitrous oxid-oxygen. It is a mistake to think that a fatality under anesthesia is necessarily due to an unusually large administration of the anesthetic. A previous condition of suffering or anxiety, or a prolongation of the stage of anesthetic excitement renders a subject who would otherwise be able to resist a large dosage liable to collapse even under a small dosage. The practical importance of avoiding so far as possible all anxiety and pain has been demonstrated on the clinical side by Crile, and experimentally by Henderson. It is noteworthy that Levy (with Cushny) has recently demonstrated that in cats a sudden heart-failure (fibrillation) is induced by a period of light chloroform anesthesia, while this form of death is not inducible by deep anesthesia. Risks of this sort are far greater with chloroform than with ether, and greater with ether than with nitrous oxid. As they cannot be foreseen, they cannot be avoided, except by replacing a dangerous anesthetic by a safe one.

3. Chloroform is sometimes found convenient for initiating anesthesia in alcoholics or other difficult subjects. As a means of avoiding the ill effects of a prolonged period of ether excitement the temporary employment of chloroform for this purpose is perhaps sometimes the less of two

evils. It is justifiable only when nitrous oxid is not available. If chloroform is to be used, it should be given as soon as it is evident that the patient will not go under ether readily. Unless the change to chloroform is made early it should not be made at all. We wish especially to emphasize the point that chloroform should never under any circumstances be administered after a prolonged period (ten or fifteen minutes or more) of ether excitement. Even a small administration of chloroform is then peculiarly liable to induce respiratory or cardiac death. As soon as full anesthesia is attained ether should be substituted.

4. As regards ether, the two points to be especially emphasized are that anesthesia should always be induced quickly, and that throughout its entire duration it should be as nearly uniform as possible. Physiology has demonstrated that the predominant stimulant maintaining respiration in a normal subject is the CO_2 in the blood. If for even a few minutes this gas is exhaled more rapidly than it is being produced, a compensatory period is liable to follow in which all spontaneous breathing ceases. This apnea vera tends to last until the body has reaccumulated its normal store of CO_2, and the respiratory center is thereby again stimulated to its normal activity. During the initial period of etherization, the so-called stage of excitement, the subject generally breathes excessively. The analyses of Henderson have shown that if this period is prolonged a condition of intense acapnia (deficiency of CO_2) results. When full anesthesia is thereafter attained the subject, although acapnic and prone to apnea, is still sufficiently stimulated by the influence of ether so that, in the majority of cases, an apparently natural or even excessive respiration is maintained. This condition may continue even up to the end of a long operation. At any time, however (and the tendency increases as time goes on), the balance between the stimulant action of ether and the depressant influence of acapnia may become negative, and the subject stops breathing. If the acapnia is sufficiently intense, this respiratory failure (apnea) may continue until death results from lack of oxygen. Fortunately, lack of oxygen also exerts indirectly some stimulating influence on respiration. Otherwise such fatalities would be much more frequent than they are. We are of the opinion that respiratory failure may be in certain cases the indirect result of an unskilful timidity which, by prolonging the stage of excitement, induces acapnia, rather than the direct result of overboldness in the administration of ether at the moment of failure.

5. It is a well-demonstrated rule that a subject who has once been etherized or chloroformed cannot be again anesthetized within a few hours without great risk. Essentially the same danger is involved in allowing the intensity of anesthesia to vary during an operation. It is not the anesthetist who at all times maintains uniformly deep anesthesia whose patient stops breathing. This accident comes particularly to those who administer so irregularly that the patient at times comes nearly out of anesthesia and again is plunged into profound narcosis. In the production of a fatality the intervals of incomplete anesthesia play a part as great as, or even greater than, the period of profound narcosis which immediately precedes the respiratory (or cardiac) failure. Anesthesia is good in proportion as it is uniform.

6. Offenses against this principle occur most frequently in adenoid and tonsillar operations. When the death of the patient (usually a child) results it is assigned either to "heart-disease" or to an "unrecognized condition of status lymphaticus." It is probable that in most cases these deaths are merely the natural result of intermittent anesthesia and of the increased susceptibility induced by fear. Under the ordinary methods the anesthetist and the operator are alternately in control of the patient's nose and mouth. The method of intratracheal insufflation introduced by Meltzer and Auer appears to be peculiarly well adapted to afford a safe anesthesia and at the same time to keep the field of operation clear, and the anesthetist out of the way. There is now a sufficient accumulation of clinical experience with this method to demonstrate its safety and convenience. We recommend that it be widely adopted. For operations on the head and neck, when it is advantageous to keep the anesthetist out of the surgeon's way, most of the advantages of intratracheal insufflation are afforded by intrapharyngeal insufflation with the simple apparatus (air blower, ether vaporizer and catheter inserted through one nostril) devised by Thomas. Gwathmey has shown the marked advantage of warming ether vapor, even in the ordinary methods of administration. For any form of insufflation an arrangement for heating is essential.

7. Theory and practice alike demonstrate the propriety in the large majority of major operations of administering subcutaneously a liberal dose of morphin half an hour or more before initiating anesthesia. It obviates anxiety, diminishes the intensity and duration of the stage of excitement, and lessens pain after the anesthesia is terminated. These are all points of marked

advantage in conserving vitality. Morphin is *par excellence* the prophylactic against shock. Against the use of morphin it has been argued that it depresses respiration and thus tends to delay the elimination of the anesthetic after the operation. This is true, and it is a point of importance. In the next section is set forth a method of overcoming this disadvantage.

8. We suggest that in every operating-room there be kept on hand and available for immediate use tanks of oxygen containing 8 or 10 per cent. of CO_2. We have communicated with all of the principal companies manufacturing gases for clinical use, and we have been informed by them not only that they can supply such a mixture, but that as soon as there is a considerable demand for it they will be able to do so at the same price as that charged for pure oxygen. It has been demonstrated that CO_2 (properly diluted) is by far the most efficient (because it is the natural) respiratory stimulant. The carbonated oxygen is conveniently administered by means of such a mask and bag as is ordinarily used for nitrous oxid. It should be administered at the first sign of respiratory or circulatory failure. By using it at the outset of anesthesia by any "closed" method a more rapid absorption of ether may be obtained, and a consequent shortening of the period of excitement. By administering it alone after the operation respiration is stimulated to a more rapid elimination of the anesthetic in even a deeply morphinized subject. It is thus easy to prevent the prolonged period of subnormal breathing with its cyanosis and ether retention which now frequently follows anesthesia. For the last-mentioned purpose it would be equally effective and much cheaper to employ pure CO_2 (such as is used in the manufacture of carbonated table waters) diluted with ten to twelve volumes of air. An apparatus for effecting this dilution is now being devised and tested by a member of this committee, and will probably be available for general use within a few months.

9. The most important event in the recent progress of practical anesthesia was the demonstration by Gatch of beneficial effects of a certain amount of rebreathing in nitrous oxid-oxygen anesthesia. It affords a clinical confirmation of the validity of the acapnia theory in relation to anesthetic fatalities. As the results of Gatch's work nitrous oxid-oxygen, reinforced when necessary with a very small amount of ether, and administered by "rebreathing" methods, is being extensively adopted as the anesthetic of choice for major operations involving a considerable amount of shock, or on already shocked subjects. A number of ingenious and convenient forms of apparatus for the administration of nitrous oxid have recently been devised and put on the market. We have examined them, but feel that it is as yet too early to decide on their relative merits. In one respect all of those that we have seen are defective, namely, in the insufficient closeness of the mask on the face. If the air in any quantity leaks into the mask and bag, the oxygen which it contains is quickly absorbed, and leaves the nitrogen. As air is four parts nitrogen to one of oxygen, the mixture of nitrous oxid and oxygen which the patient is breathing soon becames so diluted with nitrogen that it neither prevents cyanosis nor maintains full anesthesia. Such troubles as occasionally arise with nitrous oxid anesthesia are principally due, in our opinion, to this dilution. To overcome this defect a mask which is at once light, easily adjusted, absolutely air-tight on any face, quickly removable and not requiring to be held by the hand of the anesthetist is the greatest need. We recommend that a prize of $200 be offered for the invention of a mask fulfilling these requirements — the award to be made by our successors on this committee.

While nitrous oxid-oxygen appears to afford the least deleterious of all forms of anesthesia, it is also unfortunately the most expensive. It is easily seen that the greater part of this cost is not for the nitrous oxid which is actually absorbed to induce anesthesia, nor for the oxygen which the patient consumes. The patient is constantly exhaling CO_2; and even when a considerable amount of rebreathing is practiced, the removal of this substance from the mask and bag involves the waste of ten to twenty times as much oxygen, and fifty to 100 times as much nitrous oxid. It is the necessity of removing CO_2, therefore, which is the source of at least 90 per cent. of the cost of this form of anesthesia. As a few cents' worth of sodium or potassium hydroxid would absorb all of the CO_2 exhaled by the patient in many hours, a member of this committee has undertaken the problem of devising a simple form of absorber. The results of the experimental and clinical tests of this device will be reported later in *The Journal of the American Medical Association.*

10. Finally, we would respectfully recommend that the president of the association in appointing our successors on this committee make his selection not, as has been the custom in the past, wholly or almost wholly from the ranks of the surgeons, but rather from among those whose principal interest is in this field of work, and who, during the past few years, have themselves made contributions of value to the theory and practice of anesthesia.

THE TOXIC FACTORS OF INTESTINAL OBSTRUCTION

For a considerable period of time there has been an honest difference of opinion regarding the actual factors concerned in and producing the lethal symptoms in intestinal obstruction. Much experimental work has been done and a vast amount of literature has been published in the effort to elucidate the problem.

The classical explanations of the cause of death in obstruction have been grouped under three heads: (1) infection; (2) nervous reflexes; (3) intoxication. The third explanation has been further subdivided into two groups with regard to the source of the toxic material, one attributing the noxious material to bacterial activity within the alimentary canal and the other to a secretion of the poisons by the glandular structures of the digestive tract. A fourth view, recently championed by Murphy and Vincent, is that of venous obstruction as being the most important vital factor in the production of the symptoms of ileus.

From an extensive series of experiments carried on in the department of surgery at the Cornell University Medical College, Hartwell and Hogue[1] conclude that death from intestinal obstruction in dogs seems to result from "the presence of toxic substances in the circulating blood which produce fatal lesions in the kidney, liver and other tissues. The essential factor which admits these substances into the blood is an injury to the lining cells of the intestine caused by the irritating action of the stagnated contents, together possibly with the mechanical damage due to stretching. The poisons themselves may arise from the secretory activity of the various digestive glands, or from bacterial activity," although bacterial invasion of the blood and organs does not necessarily, often does not, occur.

There is little or no direct experimental evidence in favor of, and good evidence against, the nervous reflex hypothesis. Draper, formerly Draper Maury, and others have shown both experimentally and clinically that obstructions high in the intestinal tract are much more rapidly fatal than those situated lower down, despite the fact that the bacterial flora, almost *nil* in the duodenum, progressively increases in abundance as the aboral distance increases. Hence the bacterial theory must be abandoned as fallacious.

Bearing on the source of the toxicity in these cases the experiments of Stone, Bernheim and Whipple,[2] carried on at the Hunterian Laboratory at Johns Hopkins Medical School, are most interesting.

While attempting to isolate a loop of duodenum for the purpose of collecting pure duodenal secretion for an entirely different set of experiments, these gentlemen suddenly discovered that they had come on an experimental lethal condition worthy of further investigation. The operation consisted of dividing the duodenum just below the distal pancreatic duct, the ends being closed and inverted, and proceeding similarly at the beginning of the jejunum, a loop from 12 to 15 cm. long was isolated. The gastrointestinal canal was then reestablished, either by an end-to-end anastomosis or later duodenojejunostomy, or by a posterior gastroenterostomy and the abdomen closed. In the course of a few hours following such operation the animal became dull, developed tremors and staggering in the hind legs. These symptoms increased to the point of inability to walk, the pulse became weak and rapid and death occurred in all four dogs so treated, within twenty-eight hours from operation. Strangely enough, none of these symptoms were manifested until within from two to five hours of the end. Vomiting was usually absent, there was no abdominal distention and there seemed to be no pain. But little different results were obtained save a seeming slight prolongation of life, in cases wherein the loop was thoroughly washed free of any detritus, secretion, etc., before closing the ends.

A further series was carried through for the purpose of ruling out the influence of vascular disturbances, as elaborated by Murphy, Vincent and others, and to render the experiment still more simple. Here the technic was the same with the substitution of mere ligation in place of cutting the duodenum, the only vascular interference being that of the narrow circle of gut immediately within the grip of the ligatures.

Whether these dogs died in twenty-four or seventy-two hours the autopsy findings were usually uniform. The thorax, heart and lungs were negative; the spleen, pancreas, kidneys, adrenals and blood-vessels were normal. The peritoneum was dry rather than moist, the liver may show some congestion and in some cases a little fatty degeneration. But the closed loop was invariably enlarged and distended with fluid, its walls often mottled with purple areas of hemorrhage and stippled with grains of fibrin. Occasionally there were greenish, charred-looking areas of necrosis, with rupture through such area and escape of fluid into the peritoneal cavity in one case. The

1. Am. Jour. of Med. Sc., March, 1912, p. 390.
2. Bull. Johns Hopkins Hosp., June, 1912, pp. 159-165.

fluid in the loop was characteristically of a dirty slate or dirty red color, about the consistency of thick soup, often containing considerable mucus, blood and desquamated mucosa. The odor is unpleasant, suggesting hydrogen sulphid which chemically, however, is not present. The mucosa of the loop may be intact, showing only a diffuse reddening and swelling, but more often is specked with ecchymoses or shows shallow ulcers with red, swollen margins. Microscopic examination is principally confirmatory of the gross findings.

In dogs killed before the onset of the symptoms of intoxication the findings are practically normal, save that the contents of the loop show large amounts of the toxic substance present in such abundance in the fatal cases.

Excision of the loop in one dog left him alive and in good shape at the end of eight weeks, and a similar result was obtained in those cases where free drainage of the loop could be established.

The reaction of a healthy dog to the fluid of the loop introduced intravenously is constant. Following the injection comes a fall in the blood-pressure slowly progressing, with a slight slowing of the pulse. The fall is accompanied by a great dilatation of the splanchnic vessels; the blood at this time clots very slowly and will inhibit normal blood coagulation, antithrombin being present in considerable quantity. The intestines even to the rectum contain increased fluid stools. The temperature and respiration are both subnormal, respiration becoming very slow and gasping with prolonged and forceful inspiration. The pupils are widely dilated, and death usually supervenes in two to six hours. On autopsy such a dog shows great blood concentration, slow clotting, lessened amount in heart and great splanchnic engorgement. The spleen, liver and pancreas show some engorgement, but the stomach usually none, while the duodenum shows a deep red or purple velvety mucosa, often covered with mucus and associated with a great deal of thin watery fluid. Other portions of the intestines are practically normal.

Strangely enough, there is evidence to prove that repeated sublethal injections of this fluid will immunize against a closed loop made at a later date.

The picture of anaphylaxis in dogs sensitized to human serum is very similar to those injected with duodenal loop fluid with the exception of the fact that the most marked changes are here manifested in the ileum.

The following conclusions are drawn:

"High loop obstruction in dogs causes very rapid death, twenty-four to sixty hours as a rule, even when the loop contains no food material or secretion from the stomach, liver and pancreas. Low loops (ileum) of similar nature are much less rapidly fatal.

"Surgical drainage of this loop will save the dog's life.

"Excision of this duodenal loop does not necessarily disturb the animal's health.

"The material obtained from obstructed loops is toxic when injected into dogs, the high loop material being much more toxic. This material causes profound splanchnic paralysis with extreme congestion of all this area — particularly the small intestine.

"The toxic material introduced into normal animals produces many changes similar to those found in the animals with closed loops — namely, low blood-pressure and temperature, excretion of large amounts of fluid into the intestinal canal and fatal shock.

"This toxic substance given in a single injection causes a reaction in the dog which is almost identical with the picture of anaphylaxis in this animal.

"The toxic material is not injured by heating at 60 C. for any length of time, centrifuging and filtering in any manner. It is not impaired by prolonged autolysis, by pancreatic digestion and bacterial fermentation. Hydrolysis with dilute acids probably destroys it.

"No such toxic substance may be obtained by autolysis, digestion or putrefaction of the normal intestinal mucosa.

"Injections of sublethal doses of this toxic material will protect against subsequent large doses and probably prolong life after a closed duodenal loop has been established."

PUBLIC HEALTH EDUCATION

The medical profession has been a little slow in its endeavors to educate the public concerning what is being done in the prevention of disease, and the necessity of having the encouragement and support of the public in this great work. While state, county and municipal boards of health have been more or less active in efforts to improve public health and sanitation, these bodies have worked independently of each other very largely, and it is only during the last few years that an agitation has sprung up demanding unity of action as well as unity of purpose of these boards. Out of this has grown the request for

a national bureau of health that shall coordinate all of the various sub-departments of the government now working independently, and that shall in a measure set the pace for the state, county and municipal bodies which are now more or less dependent on one another for initiative.

As might be expected, this move has met with violent opposition of those commercial interests that are profiting by the laxity which exists at the present time. This opposition originated with the proprietary medicine interests, and has been taken up by a few misguided individuals outside of the proprietary medicine interests through a mistaken notion as to just what the movement for a national department of public health means.

The opposition has been fed by the rankest sort of deception and falsehood concerning the aims and objects of the medical profession, and no opportunity has been lost to spread the deception and falsehood by means of articles in the public press, circulars, correspondence, and even public meetings. A very large sum of money has been expended on this campaign of opposition, and an abundance of proof has been obtained to show that the money has been furnished by the proprietary medicine interests that are well able to afford it.

The medical profession and its friends, on the other hand, has had but little money to spend, and for fear of creating a wrong impression, has in many instances refrained from being as outspoken concerning the importance of this great subject as the circumstances seem to warrant. But the time has come when every medical man should lend a helping hand in the furtherance of this beneficial object which has been fathered by the medical profession, and the consummation of which will mean so much to the American people. The public should be made acquainted with all of the facts bearing on the effort to secure a national department of public health, and also should be made acquainted with the fallacies and the motives which prompt the opposition to resort to the worst form of deception and falsehood to prevent the carrying out of the project under consideration.

Dr. J. B. Murphy's address to the House of Delegates of the American Medical Association at the Atlantic City Session touched on the importance of this subject, and we can do no better than quote him in part as follows:

"The medical profession's interest in the public welfare is axiomatic, supported by the ideals advanced and the practice followed by the medical profession for centuries. An attempt has been made in the superlative degree in the last year to discredit the altruism of the medical profession in its interest and action in its public health welfare. This attack has been so venomous, persistent and outspoken in its unquestionably false accusations which originated primarily from those with personal adverse interests, that it has now become so disseminated and broadcast that many right-minded people are accepting them as true. This has been most conspicuous in the attacks on the national health endeavors of the Association. In other words, the deep-rooted and stealthily cultivated opposition, which was hidden in the past and thus able to exert a most pernicious and adverse influence, has now been forced into the open by the efforts of the American Medical Association, and it is found to consist of those outside of the profession, who, for profit and personal interests or license, prey on the public, such as the patent medicine, adulterated drug and food interests, the Christian Scientists, chiropractics, osteopaths and magnetic healers, fortune-tellers, a small number of the homeopaths and eclectics, and a very small number of the so-called regular profession.

"The fact that the work is now in the open imposes an obligation on the profession clearly and forcefully to place before the people regarding the federal health activities the fallacies and misrepresentations of those who have profited privately and stealthily by the negligence and indifference of the national government toward the health welfare of its people. Its position must be stated on every available occasion and occasion sought for its promulgation. Every time that a speaker is advertised to attack the profession, he must be met on the same platform by members of the profession who are informed and capable of placing the medical profession in its actual and true light. Then the victory is ours. The time for assumed impregnability of the profession and dignified silence regarding these charges is past. The issue must be forceful, militant and active if the Association hopes to win for the people the benefits that can accrue from a national health department.

"Note what an organized health department service has accomplished for the people in Germany. The mortality from diseases of children has been reduced from many. The mortality from tuberculosis has been cut in two in the last five years. The mortality 18 per cent. to 9 per cent. In this country the activities which produce these results are being fought by a certain class of people, and in a clean-cut anarchistic way. No one can interpret the action of the League for Medical Freedom otherwise than as the action of an anarchistic body against law and order. The question is, will anarchy and license prevail, or will intelligence, freedom and protection dominate the health interests of these one hundred millions of people? The arguments advanced by the League

for Medical Freedom spell anarchy and unbridled license, and not intelligent organization and freedom, although many of these good and misguided people do not recognize that their actions are basically anarchistic.

"All that is necessary is that the people shall know, and we must tell them, and there will be no trouble then in overcoming the hidden and selfish opposition within the profession, as well as the richly financeered and well organized opposition from without. If we are to obtain a national independent health service it must be done through, first, educating the public, which should be the scope of the Council on Health and Public Instruction; and, second, and not less important, entrusting the legislative work to men of national reputation who are familiar with the details and requirements of legislative enactments. . . . Through this plan we may hope to secure a federal independent health service and that hope may soon be realized."

EDITORIAL NOTES

Indiana was well represented at the Atlantic City session of the A. M. A., there being eighty-five members in attendance. With the exception of Ohio and Illinois, this was the largest attendance from any one state west of the Alleghanies. As might be expected, Pennsylvania had the largest attendance with a registration of 998. New York came next with 567 and New Jersey third with 301. Ohio had a registration of 201 and Illinois of 153.

Some of our pious newspaper editors and publishers who have been asked to purge their newspapers of patent medicine and quack doctor advertising have made the plea that they could not clean up until after certain advertising contracts, some of them for long terms, have expired. As a matter of fact, this argument will not hold good, inasmuch as *Collier's Weekly* has already pointed out that "more than once the courts have held that contracts involving deals in secret nostrums, just such quackeries as Mr. Hearst derives a fat revenue from, are unenforcible as being contrary to the public weal." Therefore those newspaper editors who are really sincere in their desire to clean up the columns of their newspapers need fear no trouble from quack advertisers.

Again we desire to call attention to the change in the date of this year's session of the Indiana State Medical Association as made by the local committee on arrangements. The session will be held on Thursday and Friday, October 10 and 11, at Indianapolis. The committee on arrangements announces that the Claypool Hotel has been engaged as a place of meeting, and a program of entertainments will be published later. The scientific committee especially urges all those who desire to contribute to this year's scientific program to correspond with the secretary, Dr. Charles N. Combs of Terre Haute, and those who neglect to do this will find it impossible to secure places on the program. Dr. H. H. Wheeler, 708 K. of P. Building, Indianapolis, has charge of the exhibits and all arrangements for exhibit space should be made through him.

The Indiana State Board of Health in its education of the public has issued a cartoon with the picture of a skeleton properly clothed, at the side of which is the following inscription: "I am Death. To early join me breathe much foul air, drink alcoholic liquors, eat midnight suppers, eat lots of rich food, bolt your food or wash it down with large amounts of black coffee, neglect your bowels."

We believe that a large percentage of the owners of moving picture shows now so popular with the masses would be willing to run some of these health cartoons on the screen between acts or preliminary to the regular performance. We suggest to Secretary Hurty that he prepare for stereopticon use one or more cartoons similar to the one we have mentioned and make an endeavor to have the same used at as large a number of Indiana moving picture shows as possible. One or two of them might be used at each performance and the educational effect would be far-reaching. If the plan works out satisfactorily, arrangements could be made to have the cartoons changed frequently so as to continue the interest in the work.

The Atlantic City session of the American Medical Association may be regarded as one of the most successful ever held, notwithstanding the fact that the attendance has been exceeded at one or two previous sessions, notably those held in Boston, Chicago and St. Louis. The scientific work was of a high standard of excellence, and all of the sections report well-attended meetings and much interest. The selection of Minneapolis as the next meeting place meets with general approval, as also the election of officers, which resulted as follows: president-elect, Dr. John A.

Witherspoon, Nashville, Tenn.; first vice-president, Dr. Philander A. Harris, Paterson, N. J.; second vice-president, Dr. John L. Heffron, Syracuse, N. Y.; third vice-president, Dr. H. H. McClanahan, Omaha; fourth vice-president, Dr. Henry D. Fry, Washington, D. C.; secretary, Dr. Alexander R. Craig, Chicago; treasurer, Dr. William Allen Pusey, Chicago; trustees, Dr. M. L. Harris, Chicago; Dr. C. A. Daugherty, South Bend, Ind., and Dr. W. T. Councilman, Boston; member of the Judicial Council, Dr. George W. Guthrie, Wilkes-Barre, Pa.; member of Council on Health and Public Instruction, Dr. Walter B. Cannon, Boston; members of Council on Medical Education, Dr. James W. Holland, Philadelphia, and Dr. W. D. Haggard, Nashville, Tenn.

The average American instrument maker is a greedy individual. Not satisfied with an enormous profit on his goods he takes advantage of his customers by furnishing inferior material, as one may readily discover by comparing many American-made instruments with those made abroad. There are a few instrument makers in the United States who really furnish quality and are sincere in their expressed determination to use the best materials and workmanship obtainable; but an unreasonable profit is generally demanded. An instance of this has just come to our notice. The Schiotz tonometer for measuring intra-ocular tension costs £1.5.6, $6.37, United States money, in London. The same instrument purchased in New York or Philadelphia costs $30, and the American-made instrument costs the same amount.

Even allowing for a duty of 65 per cent. and all transportation charges, the American instrument maker nets something over 150 per cent. profit. No wonder medical societies are passing resolutions asking for a reduction of the tariff on surgical instruments and appliances. The American instrument maker has certainly been protected long enough. There is absolutely no reason why an instrument which costs $6.37 in London should cost $30 in New York. By all means let medical men, irrespective of political affiliations, use their influence toward a reduction of the tariff on surgical instruments.

Witter Water, from the Witter Medical Springs in California, is now being exploited in Indiana as a specific in the treatment of a large number and variety of diseased conditions. The circulars say that "it has made more radical cures than any other remedy . . . cures kidney and liver troubles, Bright's disease and diabetes, stomach troubles, gastritis, dyspepsia, catarrh of stomach, indigestion, eczema, scrofula in every form, ulcers, boils, blood-poisoning (syphilis) psoriasis and malaria." It is even recommended as a cure for cuts and bruises, and last, but not least—baldness. The rankest of patent medicines was never advertised more blatantly and extravagantly, and it is quite probable that no more glaring fraud was ever offered for the cure of chronic or incurable diseases.

It is unfortunate that what virtue is possessed by most of our mineral waters is generally grossly exaggerated in advertising them, and the public is led to believe that a panacea for all ills has been discovered. As a matter of fact there are certain mineral waters that have a beneficial effect in a limited number of diseased conditions when used in proper amounts and under competent advice. In the greater number of diseased conditions in which the medicinal waters are recommended, and especially in the quantities advised by the promoters, positive harm results. Witter Water may possess some virtue, but as a cure for most of the diseases for which it is advised as a specific it is a pure fraud.

The Journal of the American Medical Association, under date of June 5, calls attention to the alliance between politics and quackery by announcing that C. W. Mixer of Hastings, Mich., who for some years conducted a fraudulent cancer concern, exposed in *The Journal* under date of May 21, 1910, acted as assistant sergeant-at-arms at the Republican convention in Chicago. C. W. Mixer even wrote his prospective dupes with instructions to address him at Chicago concerning treatment.

This relation between politicians and quacks is all too prevalent, as may be noted by consulting the list of delegates to the various state as well as national conventions. We also venture to assert, without fear of contradiction, that there is not a well-known quack doctor or patent medicine interest that is not directly or indirectly represented in all of the more prominent legislatures and in congress. The result is all that could be expected, for there are many examples of the effect which political pull has had in preventing legislation inimical to the quacks and patent medicine manufacturers and the suppress-

ing of the enforcement of laws already in existence. These vultures have never had a more willing tool than Solicitor McCabe of the Agricultural Department, who thwarted every effort of Dr. Wiley to enforce the Pure Food and Drug Law, and eventually forced Dr. Wiley's resignation. Even President Taft bowed humbly to the interests in retaining Solicitor McCabe instead of handing out a discharge so richly deserved. We shall have no change in this condition of affairs as long as the people continue to put into office men who are tainted with a desire to obtain profit through the most contemptible of swindling operations, the robbing of the sick and afflicted.

Dr. Henry W. Niswonger, a licensed physician of Fort Wayne, who has paid more attention to the management of a drug store which he owns than to the practice of medicine, has been found guilty of supplying dope to the fiends who are addicted to the habitual use of cocaine and opium derivatives, and has been fined the paltry sum of one hundred dollars. The case has been appealed on the theory of Niswonger that the payment of the fine would be an admission of guilt which would be used against him in deciding his fate by the State Board of Medical Examination and Registration, which has cited him to appear and show cause why his physician's license should not be cancelled.

The practice of furnishing dope to drug users is all too common, and because of the difficulty of securing evidence prosecutions are few and far between. The offense of Dr. Niswonger is a particularly heinous one, because it has been shown that he sold dope to very young persons, scarcely beyond the age of childhood, and even when the practice was discovered the young fiends were informed by Niswonger that they would be taken care of by a continuance of the practice of furnishing dope, providing they would agree not to furnish evidence concerning the practice.

We know of no crime that is worse or more deserving of the limit of punishment than that of dispensing dope to the habitual drug users, for the dope fiends are not only ruined physically, mentally and morally, but they are one and all, sooner or later, turned into the worst criminals. The crime of murder is in no way less deserving of a severe punishment than the crime of furnishing dope to the fiends who crave it, and in our judgment the punishment which the law now prescribes for one guilty of dope selling is altogether too light. Dr. Niswonger deserves and should receive the full penalty of the law, and the State Board of Medical Examination and Registration is decidedly derelict in duty if it does not cancel Dr. Niswonger's physician's license at once.

"Don't slave. Hang out your shingle within a year. Are you one of the thousands of intelligent men and women who see nothing in the future but a life of toil, even drudgery? Are you ambitious and energetic as well as intelligent? Then chiropractic is the life work — the profession for you. You can learn chiropractic, the new science of drugless healing, in twelve months of study and at the end of that time hang out your shingle and reap the profits and the social position of a lucrative and honorable profession."

Such is the announcement made in the daily newspapers by the Ross Colleges of Chiropractic, having branches at Detroit, Mich., and Fort Wayne, Ind.

What a sad commentary on the intelligence of the public, and how ineffective has been the work of the medical profession in educating the public to the fact that in order to treat disease it must be necessary to know the nature and extent of the disease and have a knowledge of the human body when in a condition of health. The law says that a medical man shall meet certain requirements, including a license from the State Board of Medical Registration and Examination subsequent to not less than two years of academic work in an accredited college and not less than four years in an accredited medical school before he will be permitted to treat the sick and suffering. But here come the chiropractitioners who will teach any stable boy within a period of twelve months to treat disease and "reap the profits and the social position of a lucrative and honorable profession." And there are plenty of persons who want to adopt this easy way of making money, and there are all too many dupes who will employ the fakers.

But there will be a reaction, and we hope the day is not far distant when those who practice any form of drugless healing, no matter what it is, shall be required to show an adequate knowledge of the fundamental branches of medicine.

In all probability doctors will be like men in other vocations in being undecided as to how to vote at the coming presidential election. Previous political affiliations will cut but little figure in the coming election, and it is eminently right and proper that such should be the case.

The day has passed when men should be bound hand and foot to political organizations. Voters should think for themselves and act independently.

In the eyes of the medical profession President Taft occupies a rather two-sided position. He has spoken in favor of a national department of public health, with its chief officer a member of the cabinet, and he has approved the pure food and drug law, yet he has shown himself against the best interests of the public in the enforcement of the pure food and drug law by refusing to remove from office the conspirators and the tools of the drug and food adulterators who are responsible for the resignation of Dr. Wiley and who absolutely prevented the enforcement of the law. By this action he also has shown himself rather indifferent if not opposed to the national department of health which would have had more supporters if it could be shown what was possible of accomplishment by giving the Bureau of Chemistry some powers not dependent on approval of another or a superior department.

Governors Wilson and Marshall are running on a platform which gives scant encouragement to the national department of public health, but both of these men have demonstrated their progressiveness and interest in everything that pertains to the public good, not excepting public health matters. Our own Governor Marshall is highly respected by the medical profession of Indiana; for, being the son of a physician, he has a keen sense of the value of the work that is done by the medical profession in the interest of the public welfare.

But whether the Republican Party deserves a good licking for the steam roller methods which have prevailed for several years and were particularly conspicuous at Chicago, or whether the Democratic Party deserves defeat because of its ultraprogressiveness is a question which should not be decided too lightly. The men and the principles they represent, to say nothing of the interests which are influencing them, should be given careful consideration by every voter, and medical men should place in the scale those features which make for the public good as contained in all that pertains to the health as well as the prosperity of the country.

President Murphy of the American Medical Association has urged that the Association publish a small medical journal for the general practitioners. The committee to investigate the advisability of adopting the suggestion has made an adverse report. Instead the recommendation is made that a committee consisting of the editor of *The Journal*, Dr. George H. Simmons; its subscription and advertising manager, Mr. W. C. Braun; its secretary, Dr. A. R. Craig, and the editors of three state and one privately owned journal, to be selected by them, shall constitute a committee on medical journalism, which shall be empowered, with the approval of the Board of Trustees, to employ an advertising manager and to furnish him with necessary office and office force, who shall assist such journals as are conducted in accordance with reasonable rules as to plain honesty in their advertising and reading pages, in securing honest advertisements on a reasonable percentage basis; and a correspondent and his necessary assistants, who shall prepare or cause to be prepared scientific articles or abstracts on practical subjects of interest to the general practitioner for such of these journals as desire them; provided that such advertising manager or editor or committee shall not attempt in any way to influence the policy of any medical journal assisted as herein provided. With such assistance from the Association, the committee feels that existing medical journals — state and privately owned — may fill the wants so aptly described by President Murphy.

In connection with this subject the committee made some very forceful and truthful statements concerning the commercialism which dominates many of the medical journals published in this country. The report contains the following: "Many of the journals of the state associations are appreciably near the high work. Several privately owned journals are similarly conducted. Your committee does not consider as reputable a medical journal which accepts advertisements or reading notices of medicinal preparations which are fraudulent either in chemical composition or in therapeutic claims.

"There are now 278 journals published in this country more or less medical. Many of these are absolutely disgraceful to the profession which supports them. Would this Association better conditions by adding another — even a better — small journal, to the already excellent minority, or shall the Association enlarge its office force in Chicago so as to be able to extend real help to those journals — organization or privately owned — which are actually being conducted along honest lines? After an extended correspondence with health authorities, general practitioners and with the best class of medical editors, your committee is decidedly of the opinion that the time has come when an amendment to our By-Laws should provide that no one shall be eligible to membership in the American Medical Association who is connected as owner or editor with any

medical journal which accepts advertisements or reading notices of medicinal or other frauds, and that such frauds should be defined clearly.

"Such a procedure, clearly outlawing the most blatant offenders against the profession would bring this matter to its attention in such a way that reputable medical journalism would be freed from this taint of corrupt commercialism. Unquestionably, such a procedure would for a time curtail the income of such journals as complied with it. Why should this committee not assist them?"

Under the title of "Two Patent Medicine Statesmen," *Collier's Weekly* of June 22 publishes a two-page article, with abundant illustrations, proving conclusively the intimate relationship which Champ Clark and William Randolph Hearst bear to the Great American Fraud. Champ Clark's endorsement of Electric Bitters, as published in the daily papers, is reproduced, as also numerous patent medicine and quack doctor advertisements from Hearst's newspapers, the latter to show that Hearst's notice that on and after February 1 he would accept no objectionable medical advertising was not made in good faith.

Concerning Clark's testimonial, *Collier's Weekly* has this to say: "The patent medicine testimonial which we present on this page merely shows the intellectual calibre of the speaker (Champ Clark). It is rather an amusing concentration of his quality, and there is absolutely nothing sinister about it. It places him, in other words, intellectually rather than morally."

Concerning Hearst's connection with the Great American Fraud, we find the following: "For years the advertising columns of Mr. Hearst's papers have been literally oozing poison and fraud, very profitably to Mr. Hearst, but ruinously to his readers for whom he professes such paternal solicitude. Adverse criticism, or some other and less obvious motive, inspired him last winter to make a pretense of purging his pages. . . . Four months after the date set for his cleaning up there are to be found represented in his New York newspapers more than forty medical fakes. . . . For here pouring into the Hearst treasury the "rake-off" from their charlatanry are the foul brood of fake consumption cures, lost vitality nostrums, bust developers, venereal quacks (non-local), medical magic workers, secret eradicators of drink and tobacco habits, harmful kidney, bladder and liver mixtures, absurdly mendacious cure-alls, dangerous rupture appliances, cathartics reeking with false promises, impossible beauty secrets, a vicious pretense whereby a quack doctor ostensibly giving free medical counsel to the Hearst readers in reality lures them to buy concealed patent medicines, and such old-time exponents of the Great American Fraud as Lydia E. Pinkham, the Dr. Pierce fakes, Dr. Cooper and Radway's Ready Relief."

Some of this fraudulent advertising is analyzed and the reader informed as to just how vicious and dangerous the claims are as put forth by unscrupulous advertisers who are aided and protected by the Hearst papers.

In conclusion, *Collier's Weekly* says: "But the plain and painful fact is that Mr. Hearst does not want to clean up. When it comes to the issue it is not the principle that sways Mr. Hearst, it is the profit. So long as medical fraud pays it will hardly be objectionable (so-called) by William Randolph Hearst."

The law plays some very strange pranks, and as a usual thing lawyers are accountable for the inconsistencies and injustices which sometimes occur in the name of the law. In the average court trial it is not a question of bringing out the facts, but suppressing them, and it is perfectly astonishing to outsiders to know how irrelevant many of the questions are that are permitted, and how often occasion arises for objections and how often the court will sustain the objections when it would seem that if the objections were not sustained very pertinent evidence would be brought out.

The liberties taken by attorneys in cross-questioning witnesses are such that make honest and respectable people dread a court trial far more than should be the case if "the truth, the whole truth and nothing but the truth" is to be obtained. Courts should protect the witnesses, but seldom do so, and in consequence lawyers are permitted to ask highly respected and even disinterested witnesses the most insinuating and sometimes the most insulting questions, and the court insists on such questions being answered.

The deductions are oftentimes ridiculous, and should mean but little to sensible judges or jury. The demand so frequently made that a witness shall answer yes or no, without qualification, is absurd, and reminds us of the story of the witness who was told by the judge that no question was ever asked which could not be answered in either the affirmative or the negative, to which the witness replied: "Judge, if you were asked on the witness stand, 'will you stop beating your wife?' would you answer it in either the affirmative or the negative?"

Equally absurd is the effort on the part of attorneys to pin witnesses down to a recollection of events that have transpired perhaps years before, and insist that a minute description of trivial occurrences shall be given. In the case of an absolutely innocent accused person it is often impossible to have a recollection of trivial events occurring weeks, months or years before, and neither the attorneys nor the members of the jury, if placed on the stand, would show any better remembrance of events. In the case of Thaw, who has been recently tried to determine the question of sanity, the effort on the part of Mr. Jerome, the prosecuting attorney, to make capital of the fact that Thaw has been unable to remember trivial incidents in his life and to have indelibly impressed on his memory various dates and figures, is nonsense and proves absolutely nothing concerning his sanity. That Thaw was guilty of murder and should have been hung is believed by a very large number of people. That he deserves to be confined in prison for the rest of his natural days is also the thought of many. But to keep Thaw in prison solely and alone because of the charge that he is crazy is ridiculous in the light of the evidence and the published testimony in the case. Thaw will obtain his just deserts if he is denied liberty, but it is one of the inconsistencies of the law which necessitates his confinement on the baseless charge that he is insane.

As a matter of fact, what we need is a reconstruction of our court laws and rules of court procedure. Good law is good common sense, and court laws and rules of procedure in court should be formulated with the idea of not only fairness and justice to all but a display of good common sense. To permit a man like Thaw to escape hanging or life imprisonment on a technicality, and to keep him confined in an insane asylum on another technicality does not speak well for the law and for court procedure. Thaw never was any more insane than Jerome, his prosecutor and persecuter, and he is just as sane now as he ever was. On the other hand, he was guilty of murder and should have been properly punished for the crime. He is just as guilty now as he was the night that he slew Stanford White, and if he deserved punishment then he deserves it now. But the law should make the punishment fit the crime and not saddle the victim with some other crime and some other punishment in order to satisfy the ends of justice.

The subject of division of fees received considerable attention at the last meeting of the American Medical Association held at Atlantic City, and those who are guilty of the pernicious practice of secretly giving or accepting fees for cases referred will find cold comfort in some of the official actions of the Association. In the report of the Reference Committee on Amendments to the Constitution and By-Laws, a recommendation was made that the Judicial Council be requested to investigate the secret division of fees and giving of commissions, and the matter of contract practice, and recommend such action by the House of Delegates and the constituent associations as will remedy existing evils. Before the close of the session the Association adopted amendments to the Constitution and By-Laws, which read as follows:

"Chap. 2; Sec. 4.—Solicitation of patients by circulars or advertisements, or by personal communications or interviews, not warranted by personal relations, is unprofessional. It is equally unprofessional to procure patients by indirection through solicitors or agents of any kind, or by indirect advertisement, or by furnishing or inspiring newspaper or magazine comments concerning cases in which the physician has been or is concerned. All other like self-laudations defy the traditions and lower the tone of any profession and so are intolerable. The most worthy and effective advertisement possible, even for a young physician, and especially with his brother physicians, is the establishment of a well-merited reputation for professional ability and fidelity. This cannot be forced, but must be the outcome of character and conduct. The publication or circulation of ordinary simple business cards, being a matter of personal taste or local custom, and sometimes of convenience, is not *per se* improper. As implied, it is unprofessional to disregard local customs or offend recognized ideals in publishing or circulating such cards.

"It is unprofessional to promise radical cures; to boast of cures and secret methods of treatment or remedies; to exhibit certificates of skill or of success in the treatment of diseases; or to employ any methods to gain the attention of the public for the purpose of obtaining patients.

"Sec. 5.—It is unprofessional to receive remuneration from patents for surgical instruments or medicines; to accept rebates on prescriptions or surgical appliances, or perquisites from attendants who aid in the care of patients.

"Article 6. — Compensation. — Sec. 1. — The poverty of a patient and the mutual professional obligation of physicians should command the gratuitous services of a physician. But institutions endowed by societies and organizations for mutual benefit, or for accident, sickness and life insurance, or for analogous purposes should be accorded no such privileges.

"Sec. 3.—It is detrimental to the public good and degrading to the profession, and therefore unprofessional, to give or to receive a commission. It is also unprofessional to divide a fee for medical advice or surgical treatment, unless the patient or his next friend is fully informed as to the terms of the transaction. The patient should be made to realize that a proper fee should be paid the family physician for the service he renders in determining the surgical or medical treatment suited to the condition, and in advising concerning those best qualified to render any special service that may be required by the patient." [Italics ours.—ED.]

The A. M. A. is to be congratulated on having taken this decided stand, and it is now a question of forcing the members to live up to the Constitution and By-Laws. We believe that a very large number of fee dividers will pay no attention to the ethics of the profession, inasmuch as their commercial instincts and desire for gain take precedence over any willingness to live up to ethical standards. But there is one way by which the practice of fee dividing is going to be abolished, and that is through the influence of the public. Already there is a feeling of distrust of the medical profession for the commercialism that seems to be dominant, and in many quarters there is a rising agitation in favor of making it a punishable offense for physicians to traffic in the ills of humanity. We are reliably informed that in more than one state the legislatures at the coming sessions will be called on to pass laws making it a punishable offense for any physician or surgeon to be found guilty of the secret division of fees. It ought to be beneath the dignity and morals of any physician to engage in questionable practices, and it is not a flattering comment on the good intentions of the medical profession to have the public seek to secure from physicians by law a course of conduct which ought to be followed voluntarily by every physician who makes the slightest pretense to honesty of purpose. But if men cannot be made to be good by persuasion, then it is quite proper to make them good by force, and we welcome any means by which the dishonest practice of the secret division of fees shall be abolished.

AN encouraging sign of the times is the action of the National Consumers' League in addressing a formal letter to the various Republican and Democratic candidates for president, asking each one of them for a definite statement as to what they will do for the enforcement of the Pure Food and Drugs Act if elected to the presidency of the United States. The letter, which is very pointed and can scarcely be ignored, is as follows:

"CRANFORD, N. J., June 11, 1912.

"The Food Committee of the National Consumers' League desires to obtain from you some statement as to your intention in regard to the future of the Food and Drugs Act of June 30, 1906.

"This law would have afforded consumers complete protection under its provisions from the evils of adulterated, misbranded, poisonous and harmful foods, drugs, liquors and medicines, had it not been betrayed, as was demonstrated by Dr. Wiley's resignation.

"Is the policy to continue of relaxing the enforcement of the law in favor of certain privileged manufactures?

"Is the policy to continue of letting Mr. McCabe decide legal questions connected with the enforcement of the act, or is the law to be enforced only through the courts, as was intended when the act was first enacted?

"Is Secretary Wilson to be continued in office and to have the power to stop the enforcement of the law, notably in the case of the sulphuring of fruits, when he announced that 'this law has got to stop?'

"Was it intended that the Secretary of Agriculture alone should have the power of life and death over the pure food law?

"Is it just to consumers to retain in office Secretary Wilson and Messrs. McCabe and Dunlap, when these men have steadily upheld the special interests to the disadvantage of the pure food law and the detriment of the consumer?

"If you are elected to the high office of President of these United States, will you remove from office these faithless officials who have steadily favored the weakening of the law, who have permitted its fundamental principles to be violated? These are the questions that vitally concern consumers.

"We ask you what you will do, so that we may know what is to be the fate of the greatest law for the protection of the home ever enacted in this country.

"I have the honor to remain,

Very truly yours,

ALICE LAKEY,

Chairman, Food Committee, National Consumers' League."

Concerning the cause of Dr. Wiley's resignation and the attitude of President Taft in retaining in office the arch conspirators who hampered Dr. Wiley and prevented the proper enforcement of the pure food laws, the food committee of the National Consumers' League has passed the following resolution:

WHEREAS, The acceptance of Dr. Harvey W. Wiley's resignation as Chief of the Bureau of

Chemistry is the most serious blow that has befallen Pure Food Legislation, and

Whereas, Dr. Wiley has stated that his resignation was due to the fact that the differences between him and his superior officers respecting the enforcement of the pure food law were so irreconcilable that the fundamental principles of this, one by one, have been paralyzed and discredited; that interests engaged in the manufacture of misbranded and adulterated foods and drugs have escaped punishment; that officials who secretly plotted his destruction were retained in office after his exoneration of charges made against him, therefore be it

Resolved, That we, the food committee of the National Consumers' League, deeply deploring the disorganized condition of the Department of Agriculture, which renders the strict enforcement of the pure food law impossible urge upon President Taft the need of the immediate removal from office of Secretary of Agriculture James Wilson, Solicitor George B. McCabe and Dr. F. L. Dunlap, as these three faithless officials have been directly responsible for the complete breaking down of the pure food law."

CORRESPONDENCE

THE GOVERNMENT'S ESTIMATE OF THE VALUE OF EXPERT MEDICAL SERVICES

Laurel, Md., June 5, 1912.

To the Editor:—A year ago, while holding the post of Chief Officer and disbursing agent of the United States Indian Service, I was directed by the Commissioner of Indian Affairs to assist in the defense of Juan Cruze, an employee of the Department who had been indicted on charge of first degree murder, it being believed that Cruze was not guilty.

In preparing an attack on the corpus dilecti of the prosecution, I employed as medical expert at the trial, Dr. T. C. Rivera of Chamita, N. M., a man of high professional and social standing. It was a case in which large knowledge of anatomy was necessary. For the eight days, Dr. Rivera devoted his whole time to the case; was away from his home and practice and on expense the whole time.

The Indian Office refused to pay his hotel bills and now refuses to give administrative approval to the fees of $10 per day on the ground that the charge is excessive, and that $5 per day is sufficient; the Doctor paying his hotel and other expenses out of that.

For guidance of the Auditor of the Interior Department before whom this letter is now pending for adjudication, I request an opinion from you as to whether or not $5 per day, out of which expenses must be paid, is sufficient compensation for a competent medical expert in a first degree murder trial.

Respectfully,
William E. Johnson.
Laurel, Md.

[The average plumber who has spent less than a year learning his trade commands and receives more than five dollars per day, and a common laboring man with no education can command and receive from two to three dollars per day in many localities. But the Government, rich and powerful, refuses to pay even tradesman's wages for expert services from a man who has spent years and thousands of dollars acquiring his knowledge and whose time is worth much to others who are willing to pay adequately for it. It is an insult to the medical profession to offer such a niggardly fee as five dollars per day for expert medical services; and every self-respecting physician who is entitled to qualify as an expert should flatly refuse to be humiliated and imposed upon.—Editor.]

THE UNITED DOCTORS

Madison, Ind., June 22, 1912.

To the Editor:—On June 7th the "United Doctors" were scheduled to arrive in our city and cure all our citizens of their chronic ailments.

Several of the members of the Jefferson County Medical Society called to meet the doctors, but they were not there. Instead we found Dr. Wenz, of Marion County, who was taking his vacation and who was asked by the "United Doctors" to stop off at Madison, Scottsburg, Vevay, Aurora and other towns and notify the people that the "United Doctors" couldn't come at present, but would announce later in the papers the date of their arrival.

Dr. Wenz was carrying his license with him, and we have been wondering whether it was the custom for physicians to carry their licenses when going on a vacation.

We suggested to Dr. Wenz that it would not be advisable for him to treat any patient here until he could move down here and take out a license in Jefferson County. He evidently didn't like the place and promptly proceeded on his tour. The "United Doctors" have not been able to get here yet.

Dr. I. B. Hettinger, the famous cancer specialist of Cincinnati, arrived in town last Monday to treat a patient here and was arrested upon a warrant sworn out by members of our Society for practicing without a license and was arraigned in court. He pleaded guilty and was fined $25 and costs which he paid and then left for Cincinnati.

We hated to treat a visiting physician in this manner, but as "Everybody's Doin' It," we had to fall in line.

Yours respectfully,
Fred C. Denny, Secretary,
Jefferson County Medical Society.

DEATHS

Mrs. Martha Robbins, aged 72, widow of Dr. Robbins of Denver, Ind., died at the Reid Memorial Hospital at Richmond, June 7.

Dr. John S. Bell, aged 74, died at his home in Philadelphia, June 5. Dr. R. I. Bell, of Greenfield, and Dr. Charles Bell, of Indianapolis, are sons of the deceased.

Dr. Lewis Stewart died at his home in Muncie, June 12, very suddenly from hemorrhage of the brain, while working in his garden. Dr. Stewart was born in West Virginia in 1850, coming to Muncie in 1906. Dr. Stewart studied medicine in Indianapolis.

Dr. Calvin Q. Shull died at his home in Montpelier, June 22, after an illness of three weeks, aged 81. He was born in Pennsylvania in 1830, coming with his parents to Wayne County when a young man. At the age of 18 years he began the study of medicine in Indianapolis, graduating in 1852. In addition to the practice of medicine, Dr. Shull was prominent in the business affairs of Montpelier. In his early life he dealt extensively in real estate, and was the owner of more than 1,000 acres of land in Jay, Blackford and Wells counties. In 1880 he established a private bank in Montpelier, and was president of the First National Bank at the time of his death. The members of the Blackford County Medical Society acted as pall-bearers.

NEWS, NOTES AND COMMENTS

A banquet of the Alumni of the united medical schools was held in Indianapolis, on the evening of June 12, at the Hume-Mansur building.

Dr. C. C. Haskell, of the Pharmacological Department of Eli Lilly & Company, was in attendance at the Atlantic City session of the American Medical Association.

Job Freeman, a coal operator of Linton, has given his home, valued at $40,000, to be used as a hospital for the miners. The hospital will be maintained by the town of Linton.

At the annual meeting of the American Association of Medical Examiners held at Atlantic City, June 3 and 4, 1912, Dr. Frank W. Foxworthy, of Indianapolis, was elected president.

The Nu Sigma Phi Sorority of women physicians of Indianapolis, announces that it will give a reward of $3,000 for the arrest and conviction of the murderer or murderers of the late Dr. Helene Knabe.

The 39th annual session of the Northern Tri-State Medical Association was held in Detroit, Mich., July 2. Dr. C. C. Terry, of South Bend, read a paper on Cesarean Section, and Dr. C. E. Barnett, Fort Wayne, read a paper on Genital Tuberculosis in Both Male and Female.

The state board of medical registration and examination has adopted a resolution instructing the secretary, Dr. W. T. Gott, to bring action in court against under-graduate students who are practicing medicine without license and not under the direct supervision of a licensed physician.

Dr. W. D. Gatch, Indiana University School of Medicine, Indianapolis, has been awarded a certificate of honor by the American Medical Association for his work in experimental intestinal anastomosis. The award was made at the last session of the A. M. A. held in Atlantic City, June 4 to 7.

The following students of the Indiana University School of Medicine passed the recent examination for positions as internes at the city hospital and city dispensary, Indianapolis: E. L. Lingeman, H. W. Miller, Virgil Gordon, J. S.

Robison, Charles E. Irwin, C. D. Green, J. S. Nixon, Clyde C. Bittler, L. O. Sholty and Garner N. Druley.

Governor Thomas R. Marshall delivered the dedicatory address at the Vigo County Anti-Tuberculosis camp June 16. The establishment of the camp was made possible by the sale of Red Cross stamps at the Christmas season. The buildings are of the portable type, and can be sealed so that the camp can be continued through the winter. A site of thirty acres has been obtained.

Dr. W. F. King, assistant secretary of the state board of health, recently spent several days in Crawford county studying tuberculosis conditions there. In a recent inquiry covering the entire state, it was found that Crawford county had the largest death-rate from tuberculosis for the last ten years of all counties of the state, the rate for that time being 272.4 deaths to the 100,000 population.

An impostor, representing himself as being a brother of Dr. M. A. Austin of Anderson, has been calling on physicians soliciting financial assistance. The man is between 30 and 40 years of age and represents himself as being advance agent of some circus. Dr. Austin says that he has no brother, and that the man is an impostor who should receive no consideration at the hands of the medical profession.

The following Indiana physicians were on the various section programs at the Atlantic City session of the A. M. A.: Dr. W. D. Gatch, Indianapolis, "Certain Problems of Intestinal Anastomosis; an Experimental Study"; Dr. Albert E. Bulson, Jr., Fort Wayne, "Some Early Diagnostic Retinal Signs of Arteriosclerosis and Chronic Bright's Disease," and Dr. Otis B. Nesbit, Valparaiso, "Is Scarlet Fever Carried by Books?"

Prof. Carl von Noorden, a celebrated member of the Medical Faculty of Vienna University, who is coming to New York in September at the invitation of the New York Post Graduate Medical School, to deliver a series of lectures, will also go to Washington to take part in the International Hygienic Congress as the official delegate of the Austrian government. He has also accepted invitations to lecture in a number of other American cities. Professor von Noorden has selected as the theme of his lectures the progress made in the treatment and cure of diabetes and kidney troubles, as well as the science of dietetics. He will return to Vienna by the middle of November.

Dr. W. J. Fairfield, formerly of Anderson, who disappeared more than two years ago, and who was thought to be drowned in the Gunnison river, near Delta, Colo., is alive and well, and has joined his family at Denver. His memory left him following the extreme shock of a swim in the cold waters of the Gunnison river, and when he came partially to himself he was on a ship on the way to Alaska. During his absence his mind was not clear as to his past, and only recently after recovery from a concussion of the brain, did his mind become clear as to past events. He immediately took steps to locate his family who are now living in Denver. Dr. Fairfield was reported as dead in Dr. Kemper's History of Indiana physicians.

On June 6, at Atlantic City, during the session of the American Medical Association, and following a symposium on anesthesia, the National Society of Anesthetists was organized. The following officers were elected: President, James T. Gwathmey, New York; vice-presidents, Charles X. Teter, Cleveland, F. H. McMoechan, Cincinnati and Yandell Henderson, of New Haven; secretary, William C. Woolsey, Brooklyn; treasurer, Harold A. Sanders, Brooklyn. All names submitted for membership, if qualified in the estimation of the executive committee, shall be considered as charter members if presented within a period of sixty days and accompanied by the levied dues of three dollars. The National Society of Anesthetists calls all those who are actively interested in this work to join its ranks and assist in developing the subject of anesthesia to greater perfection and more uniform safety.

SOCIETY PROCEEDINGS

STATE ASSOCIATION MEMBERSHIP

The following are the members of the Indiana State Medical Association who have paid dues since the last list was published in The Journal:

Name and Address	County Society
A. G. Grubb, Mongo	LaGrange
I. J. Vaughan, Topeka	LaGrange
C. C. Rozelle, La Grange	LaGrange
E. L. Larkins, Terre Haute	Vigo
James Brunker, Riley	Vigo
J. H. Williams, Cowan	Delaware
Chas. E. Phipps, Shideler	Delaware
C. H. Wright, Yorktown	Delaware
N. S. Wood, Anderson	Madison
Chas. F. Williams, Anderson	Madison
D. C. Knott, Plymouth	Marshall
P. W. Willeford, Bowling Green	Daviess
Homer Woolery, Bloomington	Monroe
J. P. Turner, Bloomington	Monroe
James Nelson, Logansport	Cass

Name and Address	County Society
L. L. Quick, New Waverly	Cass
A. E. Graves, New Waverly	Cass
James H. Taylor, Hume-Mansur Bldg., Indianapolis	Marion
C. R. Schaefer, Willoughby Bldg., Indianapolis	Marion
Allison Maxwell, Pennway Bldg., Indianapolis	Marion
John F. McCool, 1518 E. Washington St., Indianapolis	Marion
C. D. Humes, 1820 E. 10th St., Indianapolis	Marion
C. H. Tomlinson, Cicero	Hamilton
Ross A. Cooper, Carmel	Hamilton
T. J. Marshall, Charlestown	Clark
J. J. Grosvenor, Richmond	Clark
Francis M. Payne, Princeton	Gibson
A. P. Brown, Princeton	Gibson
H. H. Alexander, Princeton	Gibson
M. S. Bulla, Richmond	Grant
O. M. Davis, Marion	Grant
B. Frank Wray, Camden	Carroll
W. H. Davenport, Vincennes	Knox
F. P. Buche, Richmond	Wayne
J. B. Clark, Economy	Wayne
C. P. Colburn, Richmond	Wayne
O. N. Deardorff, Hagerstown	Wayne
J. M. Fouts, Hagerstown	Wayne
L. M. Gentle, Richmond	Wayne
O. N. Huff, Fountain City	Wayne
W. G. Huffman, Richmond	Wayne
W. R. Littell, Cambridge City	Wayne
Chas. E. McKee, Dublin	Wayne
J. B. Meek, Richmond	Wayne
S. J. Morrow, Richmond	Wayne
C. A. Roark, Milton	Wayne
R. Schillinger, Richmond	Wayne
C. Stotelmyer, Hagerstown	Wayne
A. E. Ehle, Germantown	Wayne
W. G. Crawford, Terre Haute	Vigo
A. R. Kerr, Mellott	Fountain-Warren
H. Mullikin, Terre Haute	Vigo
G. W. Tucker, Dana	Vigo
K. C. Hershey, Carmel	Hamilton
F. A. Williams, Quincy	Owen
A. C. Kennedy, Patricksburg	Owen
J. K. Geary, Ft. Wayne	Allen
J. H. Gilpin, Ft. Wayne	Allen
George A. Ross, Ft. Wayne	Allen
John R. Thrasher, Newton Claypool Bldg., Indianapolis	Marion
H. K. Bonn, 331 N. Delaware St., Indianapolis	Marion
A. R. Burton, Princeton	Gibson
F. N. Murray, West Middleton	Howard
H. B. Hayward, Hammond	Lake
J. W. Ricketts, 3201 Central Ave., Indianapolis	Marion
Chas. E. Cottingham, Board of Trade Bldg., Indianapolis	Marion
Frank L. Truitt, Board of Trade Bldg., Indianapolis	Marion
Henry R. Alburgher, City Hospital, Indianapolis	Marion
Edward A. Brown, 1066 Virginia Ave., Indianapolis,	Marion
John Schilling, Fort Wayne	Allen
Henry Ranke, Fort Wayne	Allen
L. L. Gardner, Fort Wayne	Allen
Jas. M. Dinnen, Fort Wayne	Allen
R. L. Lockwood, Elkhart	Elkhart
S. T. Miller, Elkhart	Elkhart
F. M. Freeman, Goshen	Elkhart
L. L. Whitesides, Franklin	Johnson
T. J. Collings, Mecca	Parke
R. F. Hester, Bloomingdale	Parke
J. M. Reynolds, Memphis	Clark
Chas. L. Rea, Falmouth	Rush
C. S. Houghland, Milroy	Rush
J. R. Hume, Milroy	Rush
W. S. Coleman, Rushville	Rush
W. C. Smith, Rushville	Rush
F. H. Green, Rushville	Rush
J. C. Sexton, Rushville	Rush
F. G. Hackleman, Rushville	Rush
Lowell M. Green, Rushville	Rush
H. V. Logan, Rushville	Rush
R. T. Blount, Rushville	Rush
E. I. Wooden, Rushville	Rush
D. D. Van Osdol, Rushville	Rush
Walter S. Pollard, Evansville	Vanderburg
Taliaferro Clark, Evansville, Marine Hospital	Vanderburg
S. L. Ensminger, Crawfordsville	Montgomery
S. R. Peacock, Ladoga	Montgomery
A. N. Hamilton, Waynetown	Montgomery
H. M. Bounnell, Waynetown	Montgomery
F. E. Radcliffe, Bourbon	Marshall
R. C. Denison, Bremen	Marshall
Frank T. Dowd, 716 Massachusetts Ave., Indianapolis	Marion
C. E. Ferguson, Newton Claypool Bldg., Indianapolis	Marion
Thomas L. Sullivan, Newton Claypool Bldg., Indianapolis	Marion
Charles O. Durham, 602 S. Illinois St., Indianapolis	Marion
Walter E. Engle, 3612 E. 25th St., Indianapolis	Marion
James Smith, 3026 E. 10th St., Indianapolis	Marion
A. O. Ward, 339 Virginia Ave., Indianapolis	Marion
C. L. Ward, 339 Virginia Ave., Indianapolis	Marion
W. Peck, Frankton	Madison
L. E. Alexander, Pendleton	Madison
W. R. Sparks, Pendleton	Madison
S. C. Newlin, Anderson	Madison
S. G. Jump, Selma	Delaware
J. C. Quick, Muncie	Delaware
John F. Glover, Evansville	Vanderburg
E. R. Dean, South Bend	St. Joseph
Wm. V. Howland, Jeffersonville	Clark
W. S. Given, 401 Arsenal Ave., Indianapolis	Marion
Albert E. Sterne, 1820 E. 10th St., Indianapolis	Marion
Frederick Hershman, 4991 E. Michigan St., Indianapolis	Marion
F. Arthur Zeller, Union City	Randolph
Blanche Horner, Flora	Carroll
E. J. Davis, Mooreland	Henry
W. I. Fugate, Newcastle	Henry
C. E. Van Matre, Newcastle	Henry
C. G. Bartlett, Lewisville	Henry
W. H. Stafford, Newcastle	Henry
J. C. Hardesty, Newcastle	Henry
W. L. Meisner, Mechanicsburg	Henry
F. M. Wells, Jeffersonville	Clark
A. P. F. Gammack, South Bend	St. Joseph
H. C. Bowers, Scircleville	Clinton
Noah Zehr, Fort Wayne	Allen
E. H. Underwood, Fort Wayne	Allen
S. T. Henderson, Fort Wayne	Allen
D. J. Mercer, Fort Wayne	Allen
J. E. Stults, Fort Wayne	Allen
Frank Greenwell, Huntertown	Allen
E. H. Kruse, Fort Wayne	Allen
Alfred Kane, Fort Wayne	Allen
A. H. McBeth, Fort Wayne	Allen
H. V. Blosser, Fort Wayne	Allen
B. A. Blosser, Fort Wayne	Allen
W. H. Ristine, Crawfordsville	Montgomery
J. B. Griffith, Alamo	Montgomery
John D. Garrett, Willoughby Bldg., Indianapolis	Marion
J. T. Wheeler, K. of P. Bldg., Indianapolis	Marion
Willis D. Gatch, 1636 N. Pennsylvania Ave., Indianapolis	Marion
F. L. Pettijohn, 2454 Central Ave., Indianapolis	Marion
L. F. Page, Hume-Mansur Bldg., Indianapolis	Marion
F. W. Dunn, Gaston	Delaware

Name and Address	County Society
Geo. R. Andrews, Muncie	Delaware
L. W. Yule, Logansport	Cass
W. E. Lybrook, Young America	Cass
C. M. Sautter, Young America	Cass
B. H. Landes, Young America	Cass
L. H. Conley, Gas City	Grant
S M. Goldberger, East Chicago	Lake
D. S. Adams, Beech Grove	Marion
Wm. B. McDonald, New Augusta	Marion
Alice Hobbs, 217 W. 11th St., Indianapolis	Marion
E. F. King, Pittsboro	Hendricks
Timothy M. Weaver, Cory	Clay
W. B. Rice, Fort Wayne	Allen
C. R. Dancer, Fort Wayne	Allen
G H. Esch, Muncie	Delaware
W. B. Christophel, Misnawaka	St. Joseph
J. B. Seaman, Mishawaka	St. Joseph
Henry J. Graham, Mishawaka	St. Joseph
W. E. Borley, Mishawaka	St. Joseph
Edgar Doan, Mishawaka	St. Joseph
Wm. M. Cook, South Bend	St. Joseph
J. R. Sickler, Frankfort	Clinton
G. W. Brown, Frankfort	Clinton
I. D. White, Clinton	Vigo
Elbert S. Waymire, Peru	Miami
Martin Wagner, Peru	Miami
H. E. Line, Chili	Miami
D. L. Kahn, 107 E. 22nd St., Indianapolis	Marion
C. L. Ritter, Newton Claypool Bldg., Indianapolis	Marion
Chas. M. Dupuy, Riley	Vigo
Walter C. Van Nuys, Newcastle	Henry
O. I. Hetzler, Blountsville	Henry
C. H. Fullinwider, Mt. Vernon	Posey
J. P. Gibson, Stewartsville	Posey
O. E. Edmonds, Frankfort	Clinton
Aaron Kern, Wabash	Wabash
J. V. Reed, Hume-Mansur Bldg., Indianapolis	Marion
John A. Leas, 1201 N. Senate Ave., Indianapolis	Marion
Herbert A. Ray, Ft. Wayne	Allen
Geo. L. Marshall, Bourbon	Marshall
Joseph Felix, Logansport	Cass
R. J. Kemper, 236 N. Noble St., Indianapolis	Marion
P. E. McCown, Hume-Mansur Bldg, Indianapolis	Marion
Conrad W. Marxer, 745 S. East St., Indianapolis	Marion
Harry K. Langdon, Newton Claypool Bldg., Indianapolis	Marion
Chas. R. Sowder, Pennway Bldg., Indianapolis	Marion
J. A. Sutcliffe, 6 Baldwin Block, Indianapolis	Marion
Geo. W. Combs, Pennway Bldg., Indianapolis	Marion
S. H. Malpas, K. of P. Bldg., Indianapolis	Marion
Frank E. Abbett, Hume-Mansur Bldg., Indianapolis	Marion
Theo. F. Seymour, Mishawaka	St. Joseph
C. F. Voyles, Newton Claypool Bldg., Indianapolis	Marion
A. J. Schneider, 1640 S. Meridian St., Indianapolis	Marion
G. B. Jackson, K. of P. Bldg., Indianapolis	Marion
Homer H. Wheeler, K. of P. Bldg., Indianapolis	Marion
John A. McDonald, Newton Claypool Bldg, Indianapolis	Marion
Clarence L. Marlatt, 760 Massachusetts Ave., Indianapolis	Marion
A. L. Barnes, Southport	Marion
J. R. Bloomer, Rockville	Parke
John C. Anderson, 130 S. Audubon Road, Indianapolis	Marion
T. W. DeHass, Hume-Mansur Bldg., Indianapolis	Marion
M. A. Spink. 1140 E. Market St., Indianapolis	Marion
Urbana Spink, 1140 E. Market St., Indianapolis	Marion

INDIANAPOLIS MEDICAL SOCIETY

Meeting of May 28

Meeting called to order by the president. Attendance, 51. Minutes of last meeting read and aproved.

Application of Dr. P. W. McCarty was read for the first time.

The first paper was read by Dr. Keene. The following abstract was furnished:

The subject of tuberculosis in children must be approached with a mind disabused from prejudices, acquired by familiarity with tuberculosis in the adult. We must "completely wipe off our diagnostic slate the old clinical picture of pulmonary tuberculosis based on a group of symptoms presented in the adult, and carefully redraw an almost entirely new picture of the pulmonary form of the disease as it presents itself in childhood." The matter of the great prevalence of the pulmonary form of the disease in children was dwelt on, and a number of differences between the form of the disease as seen in the child and in the adult shown. In children the pulmonary form of the disease rarely involves either apex, while in the adult such is the usual and common seat. In children the most common location of the lesion is at about the nipples or slightly to the outside of the nipples, and most often on the left side. The disease in children is not commonly a local infection of the glands or joints, as is the standard text-book presentation, but more often a pulmonary disorder. Some men go so far as to seriously doubt if all cases of tuberculosis in children are not primarily lung infections. The lung, however, rarely has cavity formations in children, the most common cause of death being either the miliary form or a tuberculous meningitis. There exists some very marked relationship between measles and tuberculosis, as statistics show. More children develop tuberculosis following measles, than following the other infectious diseases of childhood, even allowing for the greater prevalence of measles than other diseases. The Pirquet reaction was recommended as the best of the various tests for tuberculosis, although for adults this test was not deemed as reliable as others.

The second paper was read by Dr. Potter. No abstract was furnished.

DISCUSSION

Dr. Henry: The subject of tuberculosis is the largest one before the profession. Children are very susceptible to tuberculosis. The bovine type of infection is the usual one, and preventive measures require the testing of all dairy herds with tuberculin. The site of infection is usually at the base of the lung. The von Pirquet test is not a reliable positive test. It is valuable in that it indicates that careful study of a case is necessary. The temperature record is important in diagnosis. Tuberculin, if correctly used, is valuable in treatment, but if incorrectly used it is harmful. Statistics concerning the value of tuberculin in treatment are liable to be misleading.

Dr. Kitchen: The teaching concerning tuberculosis has not been incorrect, but has been insufficient. The condition in children is not always primarily pulmonary. Adenoids and tonsils are portals of infection. Cases of measles are liable to be complicated with tubercular infection. Tuberculin in treatment should be given in small doses and with a sufficiently long interval between doses.

GENERAL DISCUSSION

Dr. Emerson: The use of antiformin in the examinations of sputum is valuable. X-ray examination of the chest is useful in locating old tuberculosis. If a central pneumonia cannot be detected by physical examination it would be next to impossible to detect the smaller tuberculous lesion. Measles clinically lights up tuberculous infection. Tuberculin as a therapeutic agent at Saranac has had a variable reputation.

Dr. Earp: In infants there may be tubercle bacilli in the blood which may cause clinical tuberculosis in a short time. Many pneumonias in children are tubercular, and usually are of the bronchial or miliary type without apical involvement, as in the adult. In children the avenue of infection is usually through the respiratory mucous membrane. A latent tubercular infection may be awakened by any infectious disease.

Dr. Torian: Tuberculosis frequently follows measles and influenza. Thirty-three per cent. of children under 12 years of age are tuberculous. The von Pirquet test is of value when positive in a child. If the child is young the trouble is probably active. Interpretation of the reaction is important. Afternoon temperature in adults indicates the possibility of tuberculosis, but this is not true in children. The blood-picture in children with tuberculosis is similar to that in chlorosis. The lymphocytes are increased.

Dr. Heath: The von Pirquet test has been found to be positive in the majority of cases of phlyctenular conjunctivitis.

Dr. Dodds: Tuberculosis is probably a childhood infection. The tests are unreliable. X-ray is valuable. The dosage and the interval between doses in giving tuberculin must be determined in each case individually.

Dr. Kiser: Von Pirquet, in making the test that bears his name, used only ether in cleansing the skin. A positive test before the age of 10 means active tuberculosis, and after that age previous tuberculosis.

Dr. Tomlin: In children the infection usually takes place through the respiratory tract. The tonsils may be the source of infection if they are degenerated. Local use of tuberculin is valuable in treatment. A case of tuberculosis of the epiglottis which yielded to the local use of tuberculin was reported.

Dr. Keene, in closing, said tuberculosis is usually a disease of childhood and it may remain latent. The tubercle bacillus may pass through the intestinal wall without causing infection.

Dr. Potter, in closing, said there were three reasons for presenting the paper: 1. Scientific grounds for tuberculin treatment. 2. Need of conservatism in treatment. 3. To get rid of the idea that tuberculin is of itself a curative. The process is that of an antigen which stimulates resistance.

Adjourned. Homer R. McKinstray, Secretary.

Meeting of June 4

Meeting called to order at 8:30 by the president. Attendance, 42. Minutes of the last meeting read, corrected and approved.

The application of Dr. C. R. Marshall was read for the first time.

The program consisted of case reports and case presentations.

Dr. J. P. Simonds could not be present to make his report.

Dr. E. G. Kyte presented a case of symmetrical pigmented linear nevus. The condition comes under the general class of hypertrophies. All conditions are included that depend on an increase of the cell elements of any part of the skin structures. Most authors consider that the condition depends on some congenital defect in the development of the skin, chiefly the epidermal layer. The patient was a female, aged 14. Present condition noted at age of 6 months, when lines over the body became slightly veined. A diagnosis of eczema was made because of a fine scaly growth which dried and dropped off. The condition gradually grew more prominent and became darkened. No pain or itching at any time. At the present time the condition extends from the radial side of right index finger up the inner aspect of the arm to the shoulder. On the right side of the back there is an inverted V. Abdomen broadly marked and line runs into pubic hair. Some markings on the face, thicker around the hair and on the scalp. The color is dark brown, verging into black. Mentality above normal. Family history negative, excepting alcoholism and locomotor ataxia in father.

Dr. F. M. Fitch presented a case of acute symmetrical scleroderma.

Dr. J. V. Reed reported a case of gunshot-wound of stomach, liver and left branch of the portal vein. A drawing showing the course of the bullet was shown. Patient recovered.

Dr. Max E. Bahr presented a case of internal hydrocephalus and a specimen of hydrocephalic brain. Photographs of sections of normal and pathologic brains were also presented. The term hydrocephalus is restricted to the designation of a condition, marked by a great increase in the cerebrospinal fluid within the skull, attended with compression of the brain. The fluid may be external or internal, the latter being ventricular. In cases which come on gradually, differential diagnosis must be made from brain tumor. Patient presented was 23 years old. Mental retardation from birth. No serious illness from infectious diseases. From an early age drank heavily of whisky, or if deprived of that, wood alcohol. About two years ago was struck violently over the head during a fight. Present condition became worse from that time. For one year had persistent and intense headaches, for which he took poisonous headache powders. Later frequent dizzy spells and attacks of vomiting. Gradual impairment of vision resulted in complete blindness. At present there is marked mental deterioration with complete disorientation as to time, place and persons. No delusions, hallucinations or illusions can be ascertained. Appearance autotoxic. Differentiation from tumor quite difficult.

Dr. T. C. Kennedy reported a ligation of the femoral artery. Patient was shot through the right thigh with a 44-calibre Colt revolver, September, 1911. Wound cleaned and packed by attending physician. Infection followed. Twenty days later patient taken to the hospital and wound cleaned of clots and sloughing tissue. Small branch of the femoral artery ligated and drainage established. Patient improved for one week, when a severe hemorrhage resulted. Hemorrhage controlled by tourniquet. Operation showed a slough in the femoral artery below the bifurcation. The superficial femoral was ligated, after which recovery was uneventful, except for gangrene of the great toe, which was amputated. Patient is now able to use his leg.

Dr. Dorsey presented slides demonstrating the straw mite named *Pediculosis ventricosus* by Newton in 1850.

No discussion.

Adjourned. Ada Schweitzer, Secretary, *pro tem.*

Meeting of June 11

Meeting called to order at 8:30 by the vice-president. Attendance, 48. Minutes of the last meeting read and approved.

First paper was read by Dr. William Shimer. Subject: "Antityphoid Inoculation." More than 35,000 people die in the United States every year from typhoid. The eradication of typhoid depends on a milk- and water-supply free from typhoid bacilli. In Indiana, in 1910, the death-rate from typhoid was 37.7 per 100,000. In Indianapolis, in 1909, 22.3, and in 1910, 28.7 per 100,000. Typhoid can be eradicated by pure water and milk and control of sick and bacilli-carriers. Bacilli must be destroyed as soon as they leave the body. The various sanitary measures are difficult to carry out, and there is likely to be a slip at some place. Antityphoid vaccination protects all who have not had typhoid. Inadequate results can be shown to be due to a single injection instead of three or four, or to too high a temperature used in killing the bacilli, or to a strain of bacilli that does not produce the required kind of immunity.

CONCLUSIONS

1. Antityphoid vaccination seldom gives severe reactions. 2. Most reactions have disappeared in twenty-four hours. 3. Antityphoid vaccination is an almost absolute protection against typhoid infection, particularly that of bacilli-carriers. 4. Universal antityphoid vaccination will do as much to eliminate typhoid, as small-pox vaccination has done to eliminate small-pox.

The second paper was read by Dr. S. E. Earp. Subject: "The Relation of a Defective Heart Muscle to Valvular Symptoms." The following abstract was furnished:

"Many of the cardiac abnormalities may depend on the condition of the heart muscle; it may be overworked, or as a result of disease, there may be a dilatation, thickening of the walls, followed by pressure and an increase in capacity. Sclerosis of the vessels, particularly the coronaries, or any factor that produces histologic change, interferes with nutrition and functional expectation of the heart. Failure of the myocardium from any cause may result in a functional or organic disorder of the valves. It seems to be reasonable to conclude that the compensating factors in valvular disease of the heart are muscular factors, and hence the valvular murmurs are not infrequently functional rather than organic. A patient with an infectious disease or those pathologic conditions known to be often associated with heart lesions, or to be forerunners of them or make them possible, should undergo a thorough examination of the heart. A toxic heart may show a mitral murmur, and it is true that in endocarditis there has generally been an element of myocarditis preceding it. The valve may do defective work and still not be a diseased valve, since a pathologic process of myocardium may prevent coaptation resulting in a murmur. It is not uncommon to diagnose a diseased valve when the heart muscle is at fault, and it necessarily seems in any case that the size, the position, character of the pulse, blood-pressure and other things concerning the heart should be carefully investigated. Even a relative murmur denotes something serious, and too frequently the forces back of it contribute to a fatal outcome. The patient may show a well-marked valvular symptom, such as a murmur, and an autopsy furnish no evidence of a defective valve. During the early part of the year I saw forty-six autopsies, and the record chart showed that 50 per cent. of the patients had a mitral regurgitation, and while there was no evidence to substantiate this so far as the findings of the autopsies were concerned, yet in nearly every instance there was a pathologic heart muscle. This, among other things, convinced me of the importance of a damaged heart muscle as a potent factor. It seems conclusive that if a valve is deformed and the heart muscle is good, there is a great degree of safety, there is likely to be compensation, but if the former is diseased and the murmur is functional, the prognosis should be guarded. The following conclusions may be apropos: It is evident that a pathologic heart muscle may be largely responsible for a functionally disordered valve and sometimes a permanent disability. A sound heart muscle may atone for the defect of a part by compensation. An infectious agent may affect any portion of the cardiovascular system with an intensity toward myocardium and valves. This condition may be transitory or continuous, and the outcome depends on the influence of it and other governing factors on the myocardium."

Dr. Kimberlin: It is difficult to estimate the reserve power in a heart muscle. In acute cases of myocardial disease there is usually a history of acute infection. Inflammatory conditions involving the upper respiratory tract are causative factors. Tests to determine the condition of the heart muscle are not always reliable. Too much attention has been paid to conditions involving the valves and not enough to the heart muscle. Relative insufficiency of the valves is common. Quality of the pulse is a more valuable observation than determination of murmurs. Study of a murmur is of no value unless the size of the heart and condition of the muscle are determined.

Dr. Emerson: The subject of Dr Earp's paper needs more attention than has been given it. Carditis is the term that should be used. Too much use is made of the stethoscope and not enough of the fingers in percussion. Exercise will determine the reserve power of the heart. More attention should be paid to the size of the heart. The muscle is at the bottom of the sounds and needs to be studied before the sounds. Many things disturb the action of the heart muscle. History will aid greatly in diagnosis. He reported two cases: 1 Mitral stenosis that was not recognized until autopsy. 2. Endocarditis with large vegetations and multiple emboli. There was no evidence of the condition in either case, since the muscle was good. The best evidence is from the history of a case.

GENERAL DISCUSSION

Dr. Wynn: Antityphoid inoculations should be applied in civil life to traveling men and vacationists. Not enough attention has been given to heart conditions. The whole heart is involved in infectious heart complications. Acute endocarditis does not exist without myocarditis. Myocarditis may be caused by other than infectious agents. Mechanical conditions and the nutrition of the muscle are considerations in causation and treatment.

Dr. Alburgher: Autopsies should be associated with clinical findings. Whether or not a valve is normal is difficult to determine; gross disease can be determined. There may be undemonstrable conditions depending on muscle conditions. Fatigue is a prime factor in causation. If there is a lesion requiring overwork the muscle must respond. Rest and nutrition are indicated in treatment.

Dr. Simonds: Antityphoid inoculation has been established by clinical demonstrations and not by laboratory experimentation. Physicians and nurses are good subjects for vaccination. The Indiana Laboratory of Hygiene furnishes the injections free.

Dr. Lapenta: In the war between Italy and Turkey there has been no typhoid in those vaccinated. Diagnosis of heart lesions should be on a clinical basis. Disordered secretion of the adrenals is a factor in heart conditions.

Dr. Shimer, in closing, thanked the discussants. The practical success of antityphoid inoculation is not appreciated. Institutions should require vaccination of inmates. Physicians, nurses, travelers and summer resorters should all be inoculated.

Dr. Earp, in closing, thanked discussants.

Adjourned. Homer R. McKinstray, Secretary.

DELAWARE COUNTY

The Delaware County Medical Society met in regular session June 7, with ex-president, U. G. Poland in the chair.

Dr. C. J. Stover, of Eaton, reported case of a two days old baby with temperature of 108 F. Recovery. Dr. Geo. R. Andrews told of a child with a temperature of 108 F. following a scald involving anterior chest wall. Death. Dr. G. W. H. Kemper mentioned a fatal case of apoplexy in a woman 70 years of age in which an axillary temperature of 108.5 F. was found.

Dr. O. W. Owens presented a paper on "Emesia Gravidarum," in which he said that nausea and vomiting of pregnancy have been considered by some as an inevitable result of irritation caused by pregnant uterus, and by others as a purely pathological condition. Theory generally accepted is that it is caused by reflex irritation proceeding in some mysterious way from developing ovum, or from some alteration of uterus from normal, especially at cervix. Three most plausible causes: flexion forward or backward; rigidity of tissues of cervix, and detention of uterus below brim of pelvis. Upon these facts rests the theory that the reflex irritation proceeds from tension or pressure on the nerve filaments distributed in walls of cervix; the tension arising when expansion process natural to pregnancy is delayed or obstructed. Causes exaggerating this condition are sudden shock to nervous system, infective process producing hyperemia of cerebro-spinal axis, excessive peristalsis in mother's intestines or toxemia affecting constitution of blood may induce an attack of emesia gravidarum, varying in extent from mild type, exemplified by morning nausea and vomiting of first food taken, to the pernicious variety where nausea is present during most of patient's waking hours and all food is rejected, resulting in extreme emaciation and collapse. Where pregnancy is not proven, in making a diagnosis, the following possibilities must be considered: marked displacement of non-pregnant uterus, septic endometritis, salpingitis, ovaritis or severe dysmenorrhea. Prognosis good if proper treatment is given early. If severe toxic element is present, it may be necessary to empty uterus. A large proportion of pernicious cases are due to hepatic insufficiency, and treatment should be directed to this cause. Hygienic measures and regulation of diet important; perhaps rectal feeding may be necessary for a time. Colonic flushings will relieve the toxemia and thirst so often present. Liquid foods acceptable. Among medicines, cerium oxylate, iodin, nux vomica, ipecac, hydrochloric acid, menthol and cocain are useful. Application of cocain to cervix and vault of vagina sometimes successful, as also manual dilatation of os. If os is extremely red applications of iodin, or argentum nitrate are indicated.

Discussion. Dr. H. D. Fair mentioned the psychic factor in emesia gravidarum. Dr. Geo. R. Andrews differentiated between the simple and pernicious types, the former due to a nervous element, and the latter toxic in character. Chloral hyd. in 60 gr. doses per rectum excellent in the former, but nothing but emptying uterus in latter will avail.

Dr. F. E. Hill: Bromids and hyoscyamus given before patient rises in morning is beneficial. Etiology sometimes due to fact that neither husband nor wife wants a baby.

Dr G. W. H Kemper told of several fatal cases, and of one patient on whom the vomiting had persisted till past seventh month. Cured by dilatation of cervix.

Society adjourned for summer vacation and will not meet again until first Friday in October.

Adjourned. H. D. Fair, Secretary.

KOSCIUSKO COUNTY MEDICAL SOCIETY

The June meeting was held at Claypool on the 25th instant. "Diseases of the Liver" was the main subject of the afternoon, there being an interesting discussion and presentation of cases by the following members: Drs. F. J. Young and J. E. Potter, Milford; Drs. P. G. Fermier and C. E. Thomas, Leesburg; Drs. C. R. Long and C. E. Leedy, Pierceton; Dr. J. L. Warvel, Sidney; Dr. N. A. Cary, Silver Lake; Drs. W. C. Landis and S. C. Murphy, Claypool; Dr. M. G. Yocum, Mentone; Drs. T. J. Shackelford, A. C. McDonald, G. W. Anglin and C. N. Howard, Warsaw. Dr. Reynolds of Warsaw was a guest of the society.

Following a vote of thanks for the hospitality of the Claypool physicians, the society adjourned.

C. N. Howard, Secretary.

MARSHALL COUNTY

The regular meeting of the Marshall County Medical Society was held in Dr. Eidson's office, Plymouth, with six members present.

Dr. Preston read a paper on "The Use of Instruments in Labor." General discussion.

Dr. Loring was elected as delegate to the House of Delegates of the Indiana State Medical Association.

Dr. G. L. Marshall of Bourbon was elected to membership in the society.

Adjourned. A. A. Thompson, Secretary.

MONTGOMERY COUNTY

The Montgomery County Medical Society met in regular session June 18 at the Y. M. C. A. at Crawfordsville. Twelve physicians were present and partook of the delicious dinner at 6 p. m. Following the dinner the business session was begun.

The committee on entertainment made a complete report. The regular meetings were discontinued until September. A public meeting will be held in July under the auspices of the local society, a lecturer from the A. M. A. to be present and give an address.

Motion carried that a vote of thanks be extended the Y. M. C. A. for the hospitality shown by granting the use of the rooms and the splendid meals served each meeting.

The committee on program reported the program for next year partly completed. Program will be out in two or three weeks.

Dr. W. T. Gott, secretary of the State Board of Medical Registration and Examination, gave an interesting talk, pointing out some of the strong points of the Indiana law, as also some of the weak ones. The educational side has been carried out quite extensively, and the standard for entrance raised considerably, causing 50 per cent. less quantity and much better quality of applicants for licenses to practice in the state. Indiana now reciprocates with twenty-seven states and conditions are favorable for universal reciprocity soon. But one medical college in the state, and it bids far to be second to none. Dr. Gott spoke of the abuse of the student exemption clause of our medical law, and mentioned the fact that a member of the State Board of Medical Registration and Examination is violating this clause. Dr. Gott closed with a plea that each county society assist in every possible way to enforce the law.

The next meeting of the society will be held Sept. 17, 1912.

Adjourned. J. L. Beatty, Secretary.

THE TRUTH ABOUT MEDICINES

This department presents, in concise form facts about the composition, quality and value of medicines. Under "Reliable Medicines" appear brief descriptions of the articles found eligible by the A. M. A. Council on Pharmacy and Chemistry for inclusion with "New and Nonofficial Remedies." Under "Reform in Medicines" appear matters, tending toward honesty in medicines and rational therapeutics, particularly the reports of the A. M. A. Council on Pharmacy and Chemistry and of the Chemical Laboratory.

The text on which these abstracts are based may be obtained from the American Medical Association, 535 Dearborn Avenue, Chicago.

RELIABLE MEDICINES

Articles found eligible by the Council on Pharmacy and Chemistry for inclusion with "New and Nonofficial Remedies."

Cholera Bacterin, Mulford, is designed for the purpose of immunizing against cholera and contains killed cholera vibrios. H. K. Mulford Co., Philadelphia (*Jour. A. M. A.*, June 1, 1912, p. 1685).

Typho-Bacterin, Mixed, Mulford, is a typhoid vaccine containing killed *Bacillus typhosus* and *Bacillus paratyphosus* A and B. H. K. Mulford Co., Philadelphia (*Jour. A. M. A.*, June 1, 1912, p. 1685).

Bismuth Beta-Naphtholate (Bismuthi Beta-Naphtholas) is a bismuth salt of beta-naphthol. It is a brownish or grayish powder without odor, almost tasteless and insoluble in water. It is decomposed into its constituents in the intestines and hence is used in catarrhal and fermentative gastro-enteric disorders, such as gastritis, dysentery, diarrhea, etc. Dose, for children 0.1 to 0.3 gm. (1½ to 5 grains) and for adults 1.5 to 5 gm. (22 to 75 grains) daily.

Bismuth Beta-Naphtholate, Mulford, complies with the description given above. It is also marketed in the form of tablets each containing 0.3 gm. (5 grains). H. K. Mulford Co., Philadelphia (*Jour. A. M. A.*, June 15, 1912, p. 1857).

REFORM IN MEDICINES

Vaccines and Serums, Control of.—The many serums, vaccines and antitoxins which are sold in this country bear the statement "Licensed by the Treasury Department" or "U. S. Government License No. ——" and "Guaranteed under the Food and Drugs Act." The latter statement means only that in case of legal difficulty the retail dealer may shift the responsibility to the manufacturer. The first two statements mean that the products are manufactured under a license issued by the United States Treasury Department after an inspection of the establishment and examination of the products themselves. The products are examined in the Hygienic Laboratory of the United States Public Health and Marine-Hospital Service, for the presence of living organisms, especially of pathogenic organisms, the presence of tetanus toxin, the control of the strength of the preparation, so far as this is possible, the absence of adulterations, etc. Unfortunately, however, there are many products whose value has not been established and others, though of value, which can not be standardized and hence certain products are advertised and sold which have little or no therapeutic value and yet bear a government license. In view of the increasing extravagance of claims made for this class of products it is important that the Council on Pharmacy and Chemistry exercise the same watchfulness over serums and vaccines that it has exercised over other products (*Jour. A. M. A.*, June 1, 1912, p. 1687).

"Prince" Guelph and Amritam.—"Prince" Guelph, who claims to be a son of the late King Edward of England, some years ago achieved notoriety in establishing the "King Edward Sanatoria of America" in Hasbrouck Heights, N. J., and also because he failed to pay his hotel bill at the Hotel St. Regis, N. Y. Now "Prince" Guelph appears as the promoter of Amritam, a soft drink claimed to be "the only known beverage that will avert premature old age and senile decay" (*Jour. A. M. A.*, June 1, 1912, p. 1692).

Tuberclecide and Its Promoter.—According to an analysis made in the A. M. A. Chemical Laboratory Tuberclecide is "essentially a solution of creosote or guaiacol in some bland oil, probably olive oil." The leading spirit of the concern and the reputed "discoverer" is one Charles F. Aycock. Aycock at one time exploited a catarrh cure, embezzled money from the county which elected him as its treasurer, forfeited the bail given by a friend, and finally was sentenced to five years in the penitentiary. Later he was released from the penitentiary through the efforts of his wife whom he then deserted (*Jour. A. M. A.*, June 1, 1912, p. 1702).

Adlerika.—Adlerika is an "appendicitis cure" sold by the Adlerika Company of St. Paul, Minn. It is sold through druggists, i. e. through such as are not above entering into this sort of scheme to defraud their customers. In a leaflet that it sends around to druggists the company frankly admits that it is not the people who *have* appendicitis that may be expected to buy this worthless and potentially dangerous fraud, but those who *think* they have it. Analyzed by the state chemists of North Dakota, Adlerika was reported to contain large quantities of epsom salts and aloes, considerable salicylic acid and a trace of alcohol. Of course, a purging preparation, such as this, not only will not cure appendicitis, but may in some cases kill the patient suffering from that disease (*Jour. A. M. A.*, June 8, 1912, p. 1770).

BOOK REVIEWS

Differential Diagnosis. Presented Through an Analysis of 385 Cases. By Richard C. Cabot, M.D., Assistant Professor of Clinical Medicine, Harvard Medical School. Second edition. Octavo of 764 pages, illustrated. Philadelphia and London: W. B. Saunders Company, 1912. Cloth, $5.50 net.

The rapid appearance of successive reprints and then of a second revised edition of this work, demonstrates the appreciation of the medical profession for this radical change in the presentation of the difficult subject of differential diagnosis.

While Dr. Cabot was not the first to teach medicine by case histories, nevertheless he has done more than anyone else in showing the value of the method and exemplifying it by this work.

A second volume treating with symptoms not dealt with in this volume is promised in the near future.

Duodenal Ulcer. By B. G. A. Moynihan, M.S. (London), F.R.C.S., Senior Assistant Surgeon at Leeds General Infirmary, England. Second edition, enlarged. Octavo of 486 pages, illustrated. Philadelphia and London: W. B. Saunders Company, 1912. Cloth, $5 net; half Morocco, $6.50 net.

The second edition of this monograph includes a more extensive discussion of the differential diagnosis of duodenal ulcer, the results of *x*-ray examinations, and also a detailed statement of the history, operation and result of all cases operated on since the last edition.

The large experience and evident careful work of the author lend great weight to his opinions, so that one cannot help being impressed with the emphasis that he continues to lay on the anamnesis and the unreliability of the laboratory and physical findings in making a diagnosis of duodenal ulcer. The recurrence of attacks of "acid dyspepsia," associated with the so-called "hunger pain," are the symptoms on which the greatest importance is placed. The work must be read to understand just what the author means by these terms.

The technic of the surgical treatment is thoroughly discussed and illustrated. The author's operative results are given in detail. It is a book that the internist as well as the surgeon should have.

Surgery and Society. A Tribute to Listerism. By C. W. Saleeby, M.D., F.R.S.E., Fellow of the Obstetric Society of Edinburgh; formerly resident physician of the Royal Infirmary and resident physician of the Maternity Hospital of Edinburgh. Cloth, pp. 395. Published by Moffat, Yard and Company, New York. 1912.

It seems, as the author states, rather strange that more literature is not available on the practical subject of the relation of surgery to society, and it is the purpose of the author to serve both the public and himself in presenting this volume. His personal motive is one of gratitude for a recent surgical beneficence, coupled with a desire to make reparation for earlier condemnation of the surgical profession. His public motives he states to be a truthful statement to modern society of the studies of surgery and science; another challenge to the antivivisectionists; a statement of the rights of mothers from the standpoint of eugenics, and a plea for greater opportunities for experimental surgery in the rational control of disease as controlled by modern politics.

The book is written in a style readily comprehended by the layman, and is an honest tribute to the discoverers of the germ theory of disease. The various phases of antiseptic and aseptic surgery as it relates to modern life are discussed with considerable feeling, and in all the work is an interesting dissertation that will be enjoyed by any layman who is at all scientifically inclined.

Dusty Air and Ill Health: A Study of Prevalent Ill Health and Causes. By Robert Hessler, A.M., M.D., Logansport, Indiana. Pp. 352. Published by the author. Cloth $2.00.

This book relates to dusty air or what is also known as bad air, impure air, and "crowd poison." The work is based largely upon the author's published papers and his discussions with patients.

The author has considered the subject under chapters as follows:

I. Kinds of people a physician meets and the explanations they have for their ills and for the ills of others, including the explanations that the doctor makes.

II. Local conditions and changes in time. Under this head the author discusses the physical changes in Indiana since occupied by the white men, and how these changes in environment have affected the diseases and state of health of man.

III. Dust and dust victims. This chapter deals with the different kinds of dust and dwells particularly on "infected" dust. The dust victims fall into groups which are discussed in the succeeding four chapters.

IV. Colds and catarrh. Colds are classified according to the place or the conditions under which they are "caught."

V. Dyspepsia. Under this head the author shows that dust is the chief factor in the cause of some dyspepsia, though the fact was discovered gradually.

VI. Nervous prostration. In this chapter the question of nervous breakdown due to the effect of breathing vitiated or dust-laden air is discussed. In this chapter will be found also a discussion of the nostrum evil and the alliance of charlatans with newspapers and newspaper medicine. Faith and mind cure has also received mention.

VII. Cardiovascular affections and heart and kidney diseases. Under this head the author states that some dust victims react by an increase in blood-pressure, the increase in the end going to the extremes, thus producing premature death.

VIII. Specific Diseases. In this chapter is discussed some of the great specific diseases, chiefly to point out the distinction between them and common ill health. The author reminds us that it should be kept in mind that his volume treats of ill health and not diseases.

IX. Biography and Ill Health. In this chapter a comparison of case reports of people, patients, studied for a series of years, and of the "lives" of people as recorded in their biographies is given. The aim is to show how the living can profit by study of the biography of men and women who while living had much ill health.

X. Perils and a Remedy. In this chapter the author very properly calls attention to the necessity of getting good air and the problem of accomplishing results in that direction.

The work is rather unique and original. It contains much food for thought which should not be considered purely speculative. In short, it is a plea for better or dust free air in order to conserve health. The book is well worth reading by the physician and will prove interesting to the layman as well. The author makes a special discount to physicians in order to give the book wide distribution, and this announcement will be found in the advertising pages of this number of The Journal.

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ORIGINAL ARTICLES

FLAT-FOOT

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Synonyms: Weak-foot, splay-foot; pronated, adducted, everted or valgic foot; *pes planus;* weak ankle; projecting inner ankle; broken-down arch; talipes valgus.

The incentive for a brief consideration of the above subject at this time is a manifold one. In the first place, the near-ubiquity of the lesion necessitates for its proper care a familiarity with the findings, on the part of the family physician, to whom naturally the first appeal for aid will be made. Secondly, the frequency with which said family physician will allow the lethargic diagnosis of "rheumatism" to satisfy his diagnostic conscience is estimated by John Lincoln Porter[1] to be 75 per cent. of all cases of painful feet that present themselves to us, when as a matter of fact less than 5 per cent. can be correctly diagnosed as "rheumatism." Hence the chances are 95 to 5 that such a diagnosis is erroneous. Likewise this author is not exaggerating when he says: "Merely to listen to a patient's history of chronic pain in his feet, steadily increasing and with more or less disability, and then to tell him he has rheumatism and proceed to fill him up with salicylates, sending him on his way without even examining him or his feet, is surely a travesty on the practice of medicine, but an altogether too common one. Surely, rheumatism, like charity, covereth a multitude of sins, but chiefly, in medicine, sins of omission." The writer vividly recalls one just such sin for which he has to atone, but is living in hopes that recurrence will not take place.

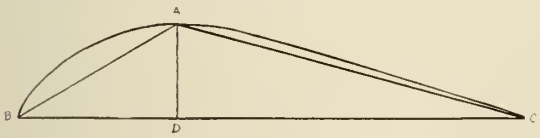

Fig. 1.—Longitudinal section made through cast under apposed feet. See text.

Some idea of the frequency of this disability may be obtained by the statistics[2] quoted by Whitman from the New York Home for the Ruptured and Crippled. Out of a total of 7,296 new patients registered in the out-patient department of this institution for 1909, there were 1,713 new cases of weak-foot, or 23 per cent. In his excellent new work,[3] DeForest Willard declares that from one-fifth to one-fourth of the deformities of the body presenting themselves to the orthopedic surgeon will be from weakened tarsal arches. Data[4] obtained by Edward Ochsner from the Surgeon-General's office show that out of 132,145 men examined for the United States Army during the years 1903, 1904 and 1905, 457, or 3.4 per thousand were rejected because of excessive flat-foot, and these figures include all men examined for reenlistment and do not include those rejected for a major trouble, such

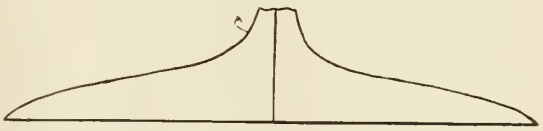

Fig. 2.—Cross-section made through cast under apposed feet.

1. Porter, J. L.: Painful Affections of the Feet, Chicago Med. Recorder, 2, 1911.

2. Whitman, E. R.: Orthopedic Surgery, 1910.
3. Willard, DeForest: Surgery of Childhood, 1910.
4. Ochsner, E. H.: Potential and Acquired Static Flat-Foot, Jour. Am. Med. Assn., Nov. 23, 1907.

as hernia, when associated with flat-foot. Of 17,619 surgical cases of the Munich Surgical Polyclinic Hoffa reports 339 cases, or 1.9 per cent., of flat-foot. Next to scoliosis it is the commonest deformity occurring in orthopedic practice.

In order to elucidate our theme a little more clearly your attention is asked to the briefest possible consideration of a few descriptive points concerning the foot and its functions, the latter of which are two-fold: viz., to serve as a passive support of the weight of the body and as an active lever to raise and propel it. Hence both elasticity and strength are prerequisites.

Ellis's conception of the arched part of the foot as being half of the arch formed by the two feet is well illustrated by Figure 1, which is a longitudinal section through a plaster cast made under the apposed feet, point *A* corresponding to the astragalo-navicular junction, the highest point of the normal arch, *B* representing the internal tuberosity of the os calcis and *C* the head of the first metatarsal bone. The line *A-D* represents the line of shortening in the flat-foot. Figure 2 shows a cross-section of the cast, representing the transverse arch.

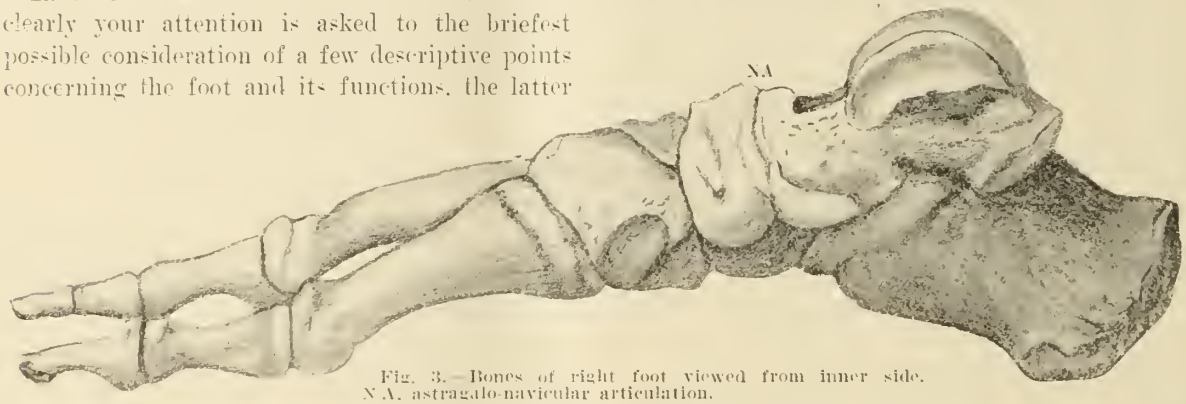

Fig. 3.—Bones of right foot viewed from inner side. N.A. astragalo-navicular articulation.

Fig. 4.—Characteristic abduction and eversion of flat-foot.

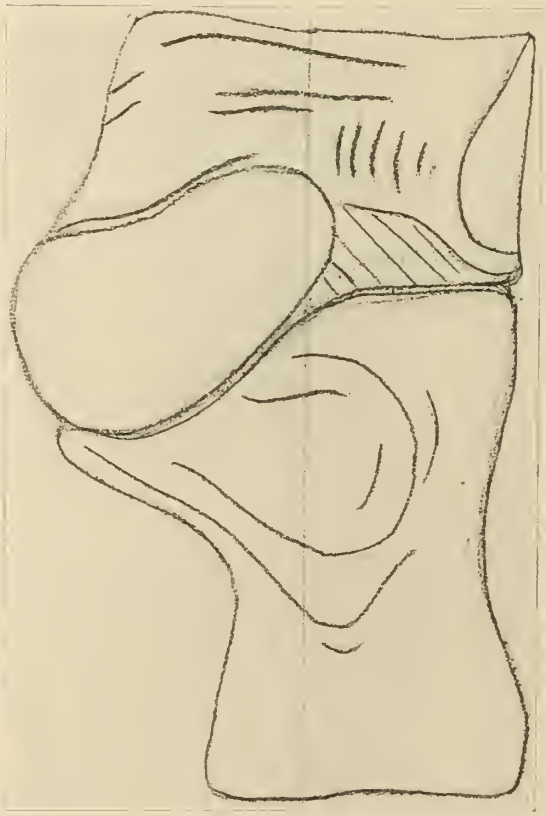

Fig. 5.—Normal relation of astragalus to os calcis.

The inner, deeper and more elastic arch is shown in Figure 3 as made up of the os calcis, astragalus, internal cuneiform and inner three

metatarsal bones, and it is with this arch that we have largely to deal in the consideration of weak-foot. The foot is supported by the muscles, ligaments and the strong plantar fascia. In active use the support comes largely from the muscles while in standing the passive support falls largely on the ligaments, which latter, when permitting abnormal expansion, allow of a greater or less depression of the arch.

Likewise in weight-bearing, the outward curve of the internal border of the foot is obliterated because of the fact that the astragalus, bearing the leg, rotates inward and downward on the os calcis until checked by the ligaments and the interlocking of the bones. In activity, however, the foot acts as a lever to raise and propel the

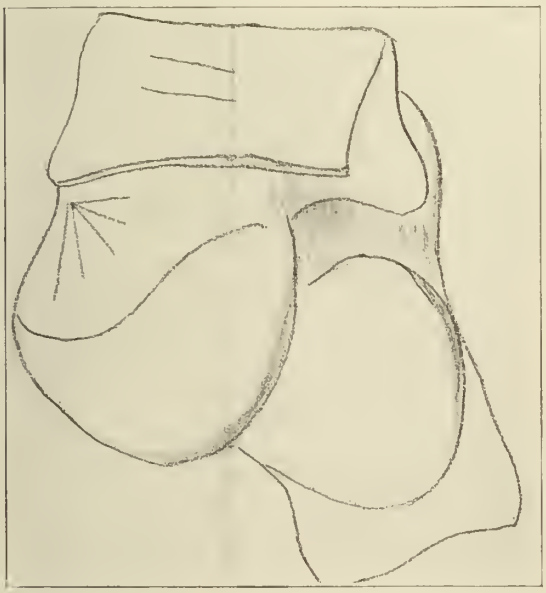

Fig. 6.—Relation of astragalus to os calcis in flat-foot.

body, the calf muscles representing the power, the tibia and fibula bearing the weight of the body as the load, while the heads of the metatarsal bones serve as the fulcrum—a lever of the third class.

In the proper gait the feet should point straight forward or with slight in-toeing in such fashion that the line of weight, passing downward through the center of the knee and ankle-joints, is continued over the second toe or practically the center of the foot. As one foot is advanced the heel momentarily first bears the weight, then the outer, stronger side of the foot and finally the toes, the great toe giving the final impulse to the step, so that from behind there is the appearance of in-toeing at the end of each step.

Weak-foot is characterized, then, by the persistence of the passive attitude of adduction, the functions of adduction and plantar flexion becoming more and more restricted until actual deformity takes place. The deformity is not so much the result of a primary depression of the arch, but rather such effect produced secondarily through a lateral displacement (abduction and eversion). In such deformity the leg is displaced

Fig. 7.—Tip-toe exercise, resting on outer borders of feet. (After Whitman.)

inward until the weight falls on the inner side of the foot and it is at the same time sufficiently rotated inward that the line prolonged from the crest of the tibia points inside the great toe or even over the center of the internal border of the foot, instead of over the second toe (see Fig. 4). The supporting calcaneo-navicular, deltoid and interosseous ligaments have become so distended and the supporting muscles so weakened as to permit of an actual subluxation, most perceptible at the astragalo-navicular articulation where the astragalus is revealed as having rotated and slipped considerably to the inner side of its normal position—an attitude of marked rotation and plantar flexion (compare Figs. 5 and 6). The navicular having been depressed with the astragalus, gives to the flat-foot the appearance of having been broken in the center, the posterior

division having been turned inward and downward, while the forefoot is forced downward and outward, giving the characteristic abduction, even though the arch be not always depressed. Here the inappropriateness of the name "flat-foot" becomes obvious, for the foot does not become weak as a result of the depression of the arch, but rather because of the persistence of the attitude of rest and relaxation, wherein the relation of the power to the fulcrum has been destroyed.

Fig. 8.—Tip-toe exercise, raising body on adducted feet.

Speaking generally from an etiologic standpoint, anything that is productive of a disproportion between the strength of the foot and the strain to which it is exposed, is conducive to the development of the condition of weak-foot. Trauma, such as sprains or fractures, rachitis, rheumatism, gout, arthritis deformans, paralysis, general muscular weakness due to acute disease or to insufficient or improper exercise, special muscular weakness, such as that of the tibialis anticus or posticus or spasm of the peroneal muscles, atrophy of the soleus and gastrocnemius, the shortening of the tendo Achillis acquired from centuries of heel-wearing and especially the high heels of women which throw the weight on the anterior portion of the foot, excessive weight-bearing from obesity and multiple pregnancies, and especially long-continued standing, as in the occupations of bakers, barbers, bar-tenders, nurses and others, are all more common etiologic factors. The frequency with which the condition first manifests its activity at puberty is referable to the lack of correlation between the strength of the muscles and tendons and the weight of the body occurring at that time. Hoffa says that 61.6 per cent. of the cases come for treatment between the ages of 11 and 25 years. Even the

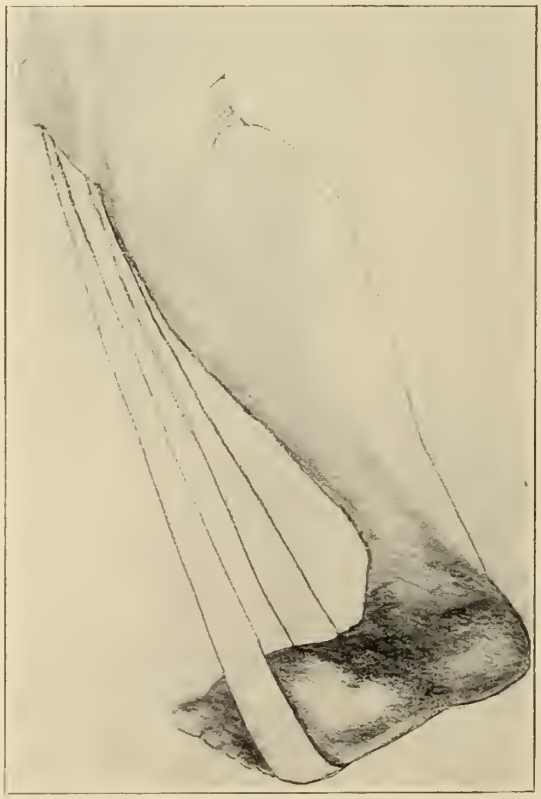

Fig. 9.—Position for strapping to be maintained by patient. Bandage should have single knot over head of first metatarsal.

congenital case may not present for treatment until the onset of puberty or the entrance into a weight-bearing occupation brings out the symptoms. The sexes are about equally affected.

Symptomatically, in the mild case, the patient usually complains of a sensation of fatigue, weakness and discomfort, even on slight exertion, associated with a tired feeling more marked on the inner side of the foot or ankle and a dull ache of the calf muscles, with or without knee, hip or lumbar pain. Outward deflection of the tendo

Achillis from a perpendicular, when weight is borne on the foot is said by Helbing to be an early and constant sign of flat-foot. Coldness, numbness, cyanosis, hyperidrosis of the feet, atrophy of the tibialis anticus and posticus, loss of elasticity in walking, resulting in a peculiar shambling gait, may also be present. Progress in severity is marked by distinct pronation or version and abduction with the loss of the inner concavity of the foot, loss of arch and loss of proper relation between the axis of the leg to the foot, above mentioned. Progressive deformity leads to muscular rigidity and diminished function, especially abduction.

The three characteristic points of pain are: first, at the astragalo-navicular articulation on the inner side of the foot where a bursa may form, become inflamed and excruciatingly sensitive; second, the middle of the dorsum of the foot where the scaphoid impinges on the neck of the astragalus; third, just in front of the external malleolus due to the changed relation and consequent friction of the external malleolus and astragalus.

There may also be pain over the plantar surface of the heel as well as at the ball of the foot at the metatarso-phalangeal junction. While well-made imprints of the soles may sometimes aid in making the diagnosis and in watching the progress of the case, yet we must not lose sight of the fact that oft-times the depression of the arch may be almost *nil* in an exquisitely painful weak foot.

As for treatment, I desire to direct your attention to a consideration of the simple weak-foot only, for the management of the rigid foot involves the aid of operative measures, a description of which cannot be entered into within the short space of time left at my disposal. Rather is it the hope of the writer to outline as briefly as possible a method of treatment that can be carried out by the general practitioner with decidedly satisfactory results in the usual mild type of deformity, even at the risk of criticism of "routine treatment," which latter factor is said by Goldthwait, Painter and Osgood[5] to be responsible for the common conception of the laity, that a weak, painful foot means a fallen arch, and that an artificial arch must be obtained and continuously worn thereafter, like a set of false teeth.

Any one who has studied this foot from an anatomico-physiologic standpoint can but concur in their conclusions drawn from a wider clinical observation. Briefly they are as follows:

1. A rigid arch supporter worn for several months, while relieving symptoms in the majority of cases, weakens the foot and tends to make the wearer dependent on it. (See Figs. 5 and 6.)

2. The prolonged use of such rigid support is, in the great majority of cases, unnecessary, if proper treatment is instituted at the appropriate time.

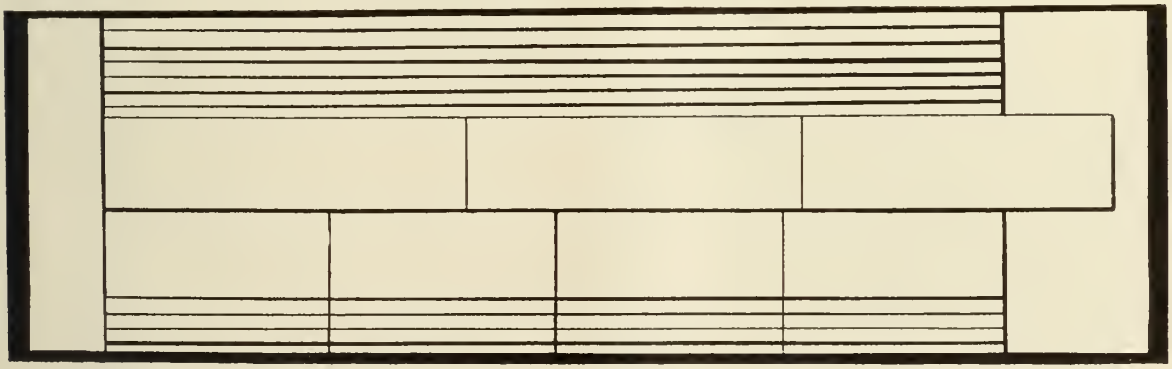

Fig. 10.—Pattern for cutting plaster for strapping. For dimensions, see Ochsner's article referred to in text.

3. The aim of the surgeon should be to strengthen the weak structure, and not simply to temporarily relieve symptoms.

4. In the cases of simple weak-foot the calcaneo-astragaloid articulation demands most attention.

5. In the severe cases of long standing, operative measures may be more commonly employed and offer lasting relief.

While admitting the occasional necessity for the temporary use of a rigid or semi-rigid arch support, such as a well-fitted, light steel plate, and this preferably carried over to the external surface of the foot, or the Thomas heel, yet the last-named authors feel that in the average type of weak-foot much greater reliance should be placed on proper exercises and shoeing because of the permanency of results accomplished.

The treatment adopted by the writer with apparently satisfactory results in four cases now

5. Goldthwait, Painter and Osgood: Diseases of the Bones and Joints, 1909.

under his care for this disability may be briefly described as follows:

The patient is instructed as to the proper and natural position of the feet in walking and is impressed with the necessity of throwing the weight first on the outer heel, then the outer side of the foot and gripping the ground with the toes, as it were, allowing the great toe to leave the ground last. For such gait, either parallelism or actual in-toeing is absolutely essential. And here it may be emphasized that proper walking is the very best exercise for this condition. Combined with this, the tip-toe exercise is prescribed, to be practiced from twenty to one hundred times each night or morning. In this, the patient, with feet placed parallel, first throws the weight on the outer side of the foot, then rises on the toes slowly (see Figs. 7 and 8). Whenever the patient has the opportunity through the day, he should cross one leg over the opposite knee and practice in turn, plantar flexion, inversion, adduction and dorsal flexion. When necessary, as a

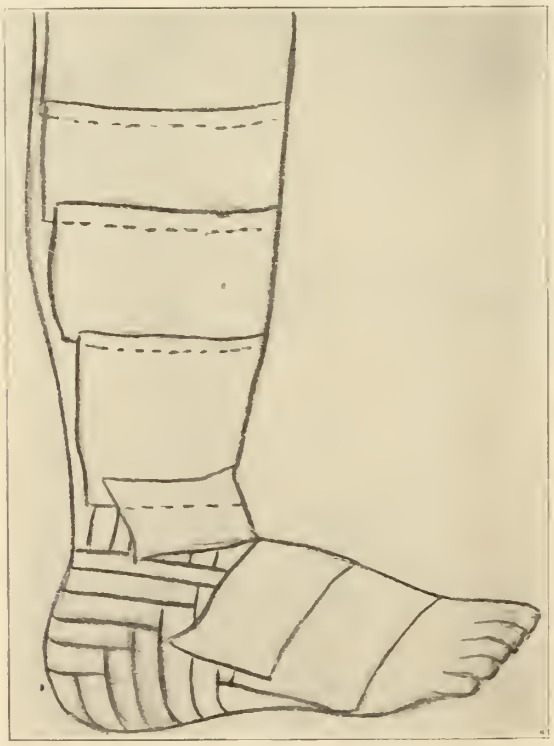

Fig. 11.—Appearance of foot with strapping completed.

temporary aid to the maintenance of proper position, either one or both feet (only one foot is markedly involved in over half the cases) are strapped in extreme adduction and dorsal flexion according to the method described by Ochsner in the article above mentioned (see Figs. 9, 10 and 11).

Not the least important factor in the treatment is the proper shoeing, and a glance at Figure 12 will reveal several of the indications to be met therein. In the first place there should be an

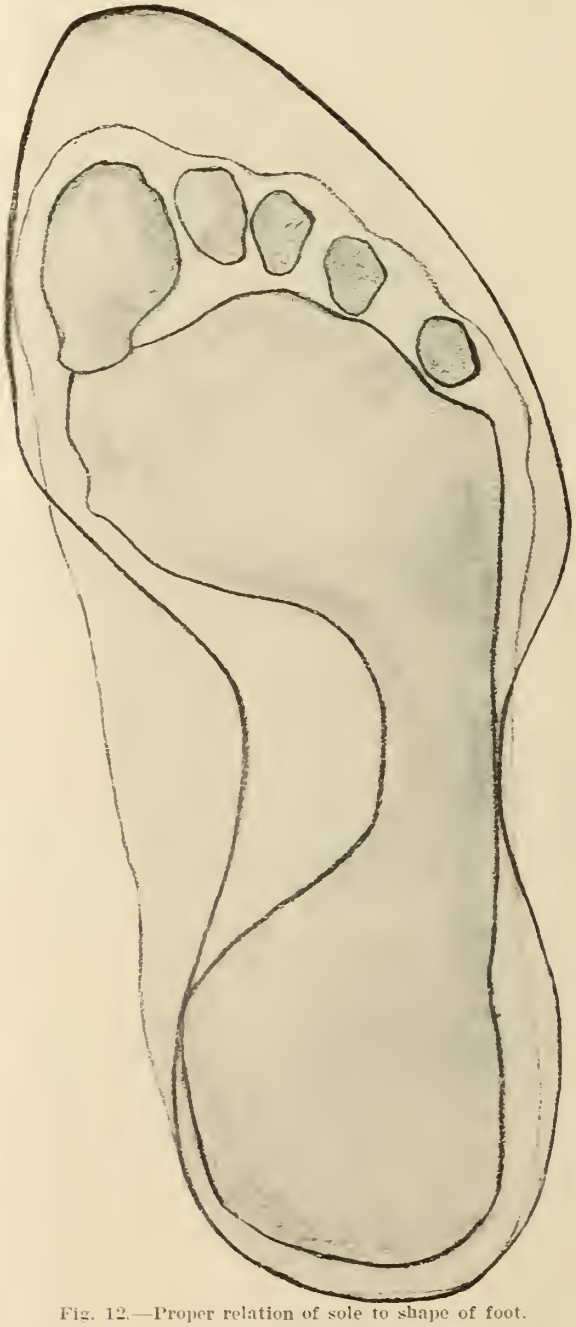

Fig. 12.—Proper relation of sole to shape of foot.

abundance of room throughout, particularly in the anterior inner portion of the shoe, in order that inversion may be favored and the toes given plenty of opportunity for the desired gripping action which is still further enhanced by an absolutely flat sole that meets the ground from the most anterior tip to the shank. This shank in turn should be both narrow and elastic in order

to afford a pliable elasticity to the arch-bearing portion. The heel should be low and broad, and it is of advantage to have the outer, anterior corner of rubber, in order to cushion the point of primary impact in walking. A low oxford is always to be preferred to a high shoe because of the free play allowed to the ankle. The indications have, in the writer's experience, been more nearly met by the so-called "Ground-Gripper Shoe" of Burt in Boston, than in any other so far observed.

A few general conclusions seem warranted. Briefly they are as follows:

1. Weak-foot is a condition far commoner than the average practitioner may believe, and must be considered seriously before a diagnosis of rheumatism is made.

2. All weak or pronated feet do not have depressed arches by any means, but represent rather a type in which there is a relative disproportion between weight-bearing and functional support.

3. Much can be done by the family physician to relieve and overcome this condition when once properly diagnosed, and in such treatment the irrational application of a rigid plate or brace as a life term sentence, must ultimately give way to a more thorough-going course of training in the exercise of proper functional use.

4. Proper shoeing at all times and temporary support, such as by adhesive strapping, in some cases, are potent factors in the treatment of all cases of weak-foot which do not demand operative correction.

THE VALUE OF CYSTOSCOPY IN THE DIAGNOSIS OF HEMATURIA *

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It is not my object to consider in a routine manner all of the etiologic factors that may produce blood in the urine. I shall rather limit myself to a consideration of profuse, painless hemorrhages from the urinary tract, with especial reference to the value of cystoscopy in the diagnosis of the source of blood, and a consideration of the underlying pathology, and to cite a few examples of the more frequently occurring causes of this type of urinary hemorrhage as met with in practice. Inasmuch as this paper shall deal only with voluminous hemorrhages, I shall pass over the various chemical tests as well as the microscopic characteristics of the blood in the urine.

Hematuria always means some pathologic process in the urinary tract and must be looked on as a signal of danger. It is never to be looked on lightly, as is so frequently done. A patient should never be told that "this is nothing serious and everything will be all right again in a few days." Equally fallacious are the irrigation of the bladder or instillations into it of various drugs, without having first determined the origin of the bleeding. It is quite obvious that such a line of treatment is nothing short of robbing a patient of valuable time by a delay of proper treatment, should he be suffering, for example, from a tumor of the kidney or a renal tuberculosis.

In other words the question of painless hematuria is one primarily of diagnosis, determining first the origin of the blood, and secondly, determining, if possible, the cause of the bleeding. By cystoscopy, ureteral catheterization and endoscopy, one can definitely determine the origin of the blood, whether renal, ureteral, vesical, prostatic or urethral in origin.

The entire subject of painless hematuria has undergone a remarkable change since the introduction of the cystoscope. Before the advent of cystoscopy most elaborate tables of differential diagnosis were found in text-books, in which various subjective symptoms and physical appearances of the urine were set down as being pathognomonic of renal or vesical hemorrhages.

While at the present time painless urinary hemorrhage which does not promptly yield to treatment is looked on as a symptom of serious moment, in former times not so much stress was attached thereto. Thus, Meinhofer, in writing on this subject, in 1810 assumes, in conformity with the views of his times, that many a renal hematuria which occurs periodically and without pain is harmless and when occurring in plethoric persons, may even be beneficial.

Cases of painless hematuria cannot be properly diagnosed without a cystoscopic examination. While a cystoscopic examination is of intrinsic value in every case of hematuria, a *"tentative"* diagnosis may perhaps be made without its aid in cases associated with pain, typical attacks of renal colic, or symptoms referable to disturbances in the urinary tract, but the final diagnosis must be made from the cystoscopic findings.

There can be no excuse for performing an exploratory operation on the urinary bladder, to find a normal bladder and the blood coming from the kidney of one, or perhaps both sides.

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* Read at the Meeting of the Wayne County Medical Society, held at Richmond, March 6, 1912.

To illustrate the types or examples of the obscure conditions and those difficult to diagnose, I have selected from a large number of hematuria cases, those in which the hematuria was the only or the predominating symptom.

It is almost needless to mention that a good, careful history should be elicited, and a physical examination made, including a rectal examination and a vaginal examination, before the cystoscopic examination is made, for there we may be able to elicit information which may be of aid in making a diagnosis. Thus, for example, a history of trauma of the kidney area, a history of previous urinary hemorrhage, and in women often a statement is obtained of hematuria occurring with each pregnancy. Not only should each cystoscopic examination be preceded by the above-mentioned examinations, but a careful and complete chemical and bacteriologic examination of the urine should precede.

It has been repeatedly demonstrated that infections of the urinary tract by *Bacillus coli communis* are often associated with painless hematuria. It is of some moment, therefore, that cultures from all obscure cases of renal hematuria be made from urine obtained directly from the kidneys by means of the ureteral catheter.

This raises the question of how many of the cases of so-called "essential hematuria," as reported by the older writers, were in reality due to colon bacillus infections. Nor must sight be lost of the fact that many of the so-called cases of "Essential Hematuria" are due to inflammatory changes in the kidneys.

After having obtained as much information as possible from the history, physical examination and urinary report, we are then ready to proceed with the cystoscopic examination, either alone, or combined with ureteral catheterization.

Of what aid is the cystoscope in making a diagnosis and how much information is obtained by its use in cases of painless urinary hemorrhage? This to a certain extent will depend on the individual cases. Cystoscopy reveals the condition of the bladder, whether normal, or whether there are any pathologic lesions present which may be the cause of the bleeding. Examples of the more frequent causes of painless hematuria of vesical origin will be mentioned below.

If in a given case the bladder is normal, one then proceeds to an examination of the ureteral orifices. These are often normal. If the cystoscopic examination is being made during the course of the bleeding and if the hemorrhage is renal in origin, it is then possible to see from which ureteral orifice the blood is being emitted.

There may be certain conditions present under which one is not able to obtain the desired information by cystoscopy. These I have divided into two groups:

1. In cases of renal hematuria which are examined in the free interval, that is, at a time when the bleeding has stopped. In view of the fact that these cases, as a rule, do not produce changes in the ureteral orifices, such as are seen in cases of tuberculosis of the kidney or in cases after the passage of ureteral calculi, it is, therefore, often impossible to state from which side the bleeding comes. Because of this fact, all cases of renal hematuria should be cystoscoped during a time when they are actively bleeding. If the bleeding has continued for a long time or is associated with the passage of clots, there may be a difference cystoscopically in the appearance of the two ureteral orifices, so that even though there is no bleeding at the time of cystoscopy one could make a probable diagnosis in favor of the kidney whose ureter shows deviations from the normal.

2. The other condition under which it may be difficult, or even at times impossible, to determine the origin of the bleeding is in large vesical hemorrhages, due to either very large or profusely bleeding neoplasms. It may become necessary in these cases in which the hemorrhage comes from the bladder, and where it is impossible to have the wash water return clear, to treat these patients, directing the treatment toward the control of the hemorrhage. For this purpose rest in bed, with the use of an ice bag over the bladder, are resorted to, aided by the internal administration of styptics. Locally, instillations of adrenalin and antipyrin are of value in controlling the hemorrhage.

While this general plan has given satisfactory results in most cases, not every case responds to treatment, and in spite of everything that can be done, the bleeding persists so that it may occasionally happen that a case will have to be operated on (where there may be danger of exsanguination) without a cystoscopic examination having previously been made.

In all my cystoscopic work this has occurred to me only once, and that in the following case, previously reported:

The patient, a male, aged 64, complained of profuse hematuria of three weeks' duration. Local and general treatment without any appreciable effect on the bleeding. It was impossible to remove the blood-clots from the bladder; so a clear medium could not be obtained, thereby rendering cystoscopy impossible. Suprapubic cystotomy revealed the following: The bladder was distended, reaching almost to the umbilicus, being filled with a large amount of blood-clots and

urine. After the cavity of the bladder was cleaned and all the clots removed, a median lobe enlargement of the prostate was seen projecting into the bladder. It had the general contour of a small uterus. Running across the top of this lobe were seen four or five dilated, tortuous, atheromatous vessels about the diameter of a large knitting needle. The blood was seen oozing from several of these small vessels which had ruptured in some unexplainable way.

The following cases have been selected from a large number of cases of hematuria in which the bleeding was the only symptom or the predominating symptom for which the patient sought relief:

Mr. A. Referred by Dr. J. B. Herrick. About three years ago the patient had his first attack of hematuria, which lasted for only twenty-four hours. He attributed this bleeding to heavy work that he had been doing, namely, lifting up fence posts. Since that time, at irregular intervals, he has had blood in the urine, which lasted only for a day or two, followed by a free interval during which the urine would be perfectly clear. For the past three months his hematuria has been constant, varying in amount, but at no time has the urine been free from blood. The present attack is the longest in duration that he has had. He complains of pain in the descending ramus of the os pubis. There is no frequency of urination. The urinary examination: bloody, acid, 1.024, albumin; microscopic examination: many well-preserved red blood-corpuscles, no pus cells, no casts, no crystals. On the right side of the bladder a tumor mass was seen extending from behind the internal ureteral orifice. The tumor is well pedunculated and covers the area in which one would expect to find the right ureteral orifice. Several dark areas are seen in the tumor, evidently hemorrhagic. Small villi may be seen floating in the boric solution which was used to distend the bladder. Hanging from the top of the internal urethral orifice, another small tumor mass, consisting of villi, may be seen. The left ureteral orifice is normal. No cystitis. Diagnosis: Papilloma of the bladder.

Mr. U. Referred by Dr. J. B. Herrick. The chief symptom was the presence of a persistent hematuria. This was rather profuse, lasting as long as seven or eight days. During the free interval the urine was perfectly clear. There were no urinary symptoms, no pain, no frequency of urination. He has had one attack of pain in the region of the left kidney but this was not very severe and was present only once. Rectal examination: slight enlargement of both lobes of the prostate. The urinary examination was negative except for the presence of large amounts of red blood-corpuscles. First cystoscopic examination: The bladder was negative; no stone, no tumor, no cystitis. At the internal urethral orifice two small prostatic lobes were seen projecting into the bladder. No visible bleeding points, the urine being emitted perfectly clear from both of the ureters. Second cystoscopic examination: the same result as at first with the exception that the base of the bladder was slightly edematous. Third cystoscopic examination: carried out about two weeks after the second and made immediately after another attack of hematuria, showed the left ureteral orifice dilated and a few blood-vessels around it well injected, although at this time the urine coming from the left ureteral orifice was perfectly clear. In view of the fact that the bladder was negative and the right ureteral orifice was normal, and considering the findings as just enumerated relating to the left ureteral orifice, a diagnosis of hemorrhage from the left kidney was made. The physical examination was negative. The patient was a very stout man with a well-marked panniculus, so that palpation of both kidney areas was negative. The patient was operated on by Dr. Bevan, who did a nephrectomy. This revealed a primary carcinoma of the pelvis of the left kidney.

This case illustrates what was previously said in regard to the difficulty at times met with in cases of renal hemorrhage when the patient is examined in the free interval, that is, when the patient is not bleeding. The first and second cystoscopic examinations were negative and gave no clue as to the probable source of the blood. It was not until he had had a third, rather sharp attack of hematuria, resulting in some slight changes in the left ureteral orifice, described above, that a diagnosis of left-sided renal hemorrhage was made, which was verified by the operation.

Mr. O. B. Referred by Dr. Ruthenberg. First attack of hematuria occurred about eight years ago. This was of about a week's duration, absolutely without pain. At this time he passed some clots, not very many, but still enough to plug the urethra. During the following year he had a little bleeding off and on. After this he was free for about a year, when suddenly, after working very hard, he had another profuse hemorrhage. Since this time he has had hemorrhages at irregular intervals. Between the hemorrhages his urine is perfectly clear and he cannot see any blood in it at all, as the patient has purposely collected his urine in glass receptacles and allowed it to stand for twenty-four to forty-eight hours, in order to inspect the sediment. The patient thinks that the attacks of bleeding are becoming more and more frequent, and he says the condition of clear urine rarely lasts longer than six or eight weeks at the present time. There are no urinary symptoms, no pain, other than that caused by a clot lodging in the urethra. He also complains of a great many neurotic symptoms.

There can hardly be any connection between his painless hematuria and these symptoms. He complains of a feeling of tenseness in the throat and neck and in the back between the scapulæ, along the supraspinatous fossa and the cervical vertebræ. This is usually accompanied with headache. These attacks occur in the free interval. When an attack is beginning to make itself manifest, and if a hemorrhage should start, the latter immediately relieves the headache and feeling of tenseness, so that the patient thinks there is a direct connection between these symptoms and the bleeding. Physical examination, *x*-ray examination and rectal examination were negative. Urine, blood red, albumin +, no sugar, many red blood-corpuscles, no casts, few leukocytes. Cystoscopically, a papilloma of the bladder, situated on the right side, behind the right ureteral orifice and slightly internal to it. This is the size of the thumb and presents the usual villous structure seen in papillomata.

Mr. G. S., aged 26. Present illness began about four months ago at which time patient first noticed that his urine was bloody. It has been bloody more or less ever since. Patient stated that sometimes his urine was perfectly clear. When the hematuria first began it was absolutely painless. He has never had any pain other than that associated with the passage of a large amount of clots. The only abnormal sensation complained of was a burning sensation in the urethra, at the end of urination. This symptom was present only at times, and at other times the urination is without pain and there is no frequency. Cystoscopic examination in the region of the left ureteral orifice: there were seen many superficial ulcers, as well as a well-marked degree of cystitis. The left ureteral orifice is wide and gaping. The mucosa immediately surrounding the left ureteral orifice is edematous and in one place a distinct vesicle with a fairly well-developed pedicle is to be seen. The right ureteral orifice is normal. Mild degree of generalized cystitis, and around the left ureteral orifice a few nodules or tubercles were seen. Double ureteral catheterization: the urine obtained from the right ureteral catheter is negative, that from the left contains pus in large amount, red blood-corpucles, and from this urine tubercle bacilli, almost in pure culture, were obtained. Diagnosis: Tuberculosis of the kidney with secondary or descending tuberculosis of the bladder.

Miss L. T., aged 24. Six or seven months ago the patient first noticed that her urine was bloody. The primary attack of hematuria persisted for about eight weeks, being worse at some times than at others. Since this very severe and sharp attack of hematuria the urine has been bloody at times for a few days and then again it would be quite clear. The patient has never passed any clotted blood. Never passed any calculi. No apparent frequency of urination, nor any urinary symptoms. While the patient sought relief primarily from the hematuria, which had alarmed her and the members of her family, it was brought out in the history that two months after the onset of her present trouble she had a very mild backache. This, at times, had been fairly severe, so that she would see a doctor about it. At present this pain has completely disappeared. Appetite good; bowels regular. Physical examination negative. Cystoscopic examination: bladder negative, no stone, no tumor, no cystitis. Both ureteral orifices negative and normal. Double ureteral catheterization: on the right side the catheter passes up into the pelvis without encountering any obstruction; the urine from the right side shows a few epithelial cells, leukocytes and red blood-corpuscles. The ureteral catheter on the left side meets an apparent obstruction 10 cm. from the left ureteral orifice. It was therefore decided to catheterize the patient with a shadowgraph catheter and take an *x*-ray picture. The catheter easily passes the previously found apparent obstruction and is passed without any difficulty into the pelvis of the left kidney. With the shadowgraph catheter in place the patient was *x*-rayed by Dr. Potter, with the resulting findings: The ureteral catheter passes across the pelvis, upward, running across the sacro-iliac synchondrosis, passing parallel with the spine. When it reaches the height of the second lumbar vertebra, the catheter bends around and then passes downward. This abnormal course pursued by the ureteral catheter may mean either one of two things: either that we have an enlarged pelvis, or that we are dealing with a movable kidney. As is well known, movable kidneys not infrequently produce voluminous hematurias. Whether this can be considered as the explanation of this hematuria still remains an open question.

Mr. C., aged 62, referred by Dr. George Baxter. The patient first consulted Dr. Baxter about eight weeks ago, complaining of headache and dizziness. At this time Dr. Baxter found albumin and casts in the urine. Four weeks later the patient had his first attack of hematuria, which was absolutely painless and lasted for about a week, at the end of which time the urine cleared completely, although microscopically a few red blood-corpuscles were always found in the urine. Since this occurred, four or five weeks ago, the patient has had many attacks of hematuria, varying in amount and duration. The patient states that sometimes he feels better after the bleeding—to use his own expression, "just as a man feels after a boil has been opened." There has been no painful urination, nor any frequency, with the exception that for the past six months he has been getting up more frequently than before that time, about once or possibly twice during the night. Cystoscopically, internal urethral orifice negative, both ureteral orifices negative, a large tumor, the size of a small pigeon's egg, in the right side of the

bladder. Rectal examination: prostate negative, a hard mass—of a stony hardness—can be felt involving the region of the seminal vesicle, extending from the lateral border of the prostate to the bony pelvic wall. Diagnosis: Primary carcinoma of the bladder involving the pelvis and right seminal vesicle.

Mrs. H., aged 49, referred by Dr. F. D. Francis. For the past ten months the patient has noticed that her urine was bloody. She stated that prior to the onset of the hematuria she had noticed a "gathering" in her side, which was associated with a small amount of pain. Since the onset of her present trouble ten months ago the urine has never been free from blood. There has been no pain or burning on urination or other abnormality of micturition. For the past two weeks there has been a slight increase in frequency of urination, so that she urinates five times during the day and once at night. Patient thinks she has lost about 40 pounds in weight. Physical examination: Patient is very pale, anemic, poorly nourished, looks to be much older than the age which she gives. Urine bloody, 1.025, albumin — many red blood-corpuscles, no casts. Abdominal walls very lax. In the left upper quadrant of the abdomen was to be seen a bulging, which moves with respiration. On palpation, this mass is hard, very irregular in outline and nodular. The mass extends almost to the median line downward to the anterior superior spine of the ilium and upward to disappear under the arch of the ribs. No tenderness, no fluctuation. Colonic distention shows the colon lying in front of the tumor mass. Cystoscopically, internal urethral orifice negative. Right ureteral orifice negative—emits clear urine. The left ureteral orifice is normal, but emits bloody urine in spurts. Diagnosis: Left-sided hematuria due to a kidney tumor. This was verified by operation — hypernephroma.

A. S., aged 22. The patient's only complaint is the presence of a painless hematuria, of five months' duration, during which time the hematuria has never entirely cleared up. At times the amount of blood in the urine would be less than at other times, but at no time since the onset of the trouble has the urine had a normal appearance. It is very bloody on rising, at which time he thinks the hematuria is the most marked. Never any clotted blood, and the patient states positively that this is his first and only attack of hematuria. No frequency of urination and no urinary symptoms. The only pain of which the patient complained was in the left upper quadrant of the abdomen, persisting for about three weeks, more or less constant, but this has since passed away and he has had no further pain. General examination: Temperature 101, pulse 100, marked pallor of the skin and mucous membranes. The heart, distinct apical pulsation in the fifth interspace, high accentuation of the second pulmonic, a mitral murmur and a slight murmur of aortic insufficiency. Lungs, no physical sign demonstrable. Abdomen, a tumor mass in the left side. The liver is palpable below the costal arch. Colon is tympanitic. Marked cyanosis of the toe nails and finger nails. First urinary report: Bloody, 1.015, acid, no sugar, albumin — red blood-corpuscles, epithelial cells and leukocytes—no tubercle bacilli found. Blood count, hemoglobin 60 per cent., erthryocytes, 3,500,000, leukocytes, 4,500. Cystoscopically, bladder negative, both ureteral orifices negative. From the left urethral orifice bloody urine is emitted in spurts. A second urinary examination showed the presence of a few granular casts. At this time a tentative diagnosis of tumor of the left kidney, with bleeding, was made. It was then decided to inflate the colon. Colonic distention shows the tumor mass to lie anterior to the colon, thereby demonstrating that the tumor was not of renal origin, but was splenic. The hematuria persisted, and the patient gradually went from bad to worse, and finally died. Post-mortem revealed the following: Chronic endocarditis of the mitral valve, enormously hypertrophied heart, enlargement of the mediastinal glands, cyanotic induration of the liver, chronic splenic tumor with infarcts and a bilateral hemorrhagic nephritis.

This case present several interesting features. First, the painless character of the hematuria; second, the presence of the tumor in the upper left quadrant of the abdomen; third, the bleeding coming only from the left ureteral orifice, and fourth, the post-mortem findings of bilateral hemorrhagic nephritis. It has usually been thought that when one kidney bleeds, we are dealing with a unilateral renal lesion; it must be borne in mind that when we are dealing with hematuria from one side, there may be something pathologic on the other side. This fact should be borne in mind in those cases in which nephrectomy is contemplated, for in cases in which a bilateral disease of the kidneys is present, although only one side may be producing symptoms at the time of the examination, to remove this kidney and leave an equally diseased one, is not good kidney surgery. I have recently seen a patient come to operation in whom just such a state of affairs was present.

I had occasion to cystoscope this patient three or four years ago and made a diagnosis of right-sided hematuria. The patient was operated on, a decapsulation was performed, which did not cause the bleeding to cease. The bleeding persisted after operation just as severely as prior to the operation for six or seven months. The patient was then free from hematuria for two or three years. He recently came under observation

again, but this time the bleeding was from the opposite side, the side which had been normal or apparently normal at the former examination. He was operated on. The kidney showed the presence of many scars and retractions. A small piece was excised and examined histologically. This showed a chronic interstitial nephritis. Since he was operated on his urine has been free from blood.

These two cases illustrate the above-mentioned point that patients may have bilateral kidney lesions although at the time of examination only one side may be bleeding.

REPORT OF CASE OF PROBABLE ACUTE POLIOMYELITIS

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Case X. Age 7. History negative except ordinary diseases of childhood: had measles last winter for which no doctor was called: has been well since, up to the present illness.

Got up sick August 23, parents thought he had some fever; gave some senna and bowels moved well: vomited morning and evening. Ate three meals with the family and played around the house some during the day. On the 24th he seemed a little worse but was up for each meal: would lie down at once after eating. Had more fever and parents gave a cascaret and bowels moved freely several times. Both days child complained of some pain in back and neck and back of head.

No physician was called until I saw him at 10:00 a. m., on August 25. He then had a temperature of 102½, pulse 104, respirations 52: did not complain of pain, but when asked said the back of his head and back hurt. Neck and arms were somewhat stiff and sore to touch and the left arm numb. On account of stiffness and soreness he did not want to be lifted up. There was no Babinski sign, no ankle-clonus, pupils equal and reacted to light; no twitching, no convulsions, and no paralysis except a loss of power in the left arm. No trial was made for Kernig's sign. No opisthotonous, no aphasia. Heart, lungs and abdomen negative.

I left the house after the examination and was called back in an hour and found the child worse: he died in half an hour—an hour and a half after I first saw him, and less than two and a half days after the onset of symptoms. He died without convulsions and was conscious up until a few minutes of death.

No autopsy was permitted, but cerebrospinal fluid taken two hours after death was negative on microscopical examination.

This case is most probably one of acute poliomyelitis affecting the bulbar area and causing paralysis of the respiratory center.

THE TREATMENT OF RAYNAUD'S DISEASE BY HYPEREMIA

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An attempt to accurately define "Raynaud's Disease" makes it apparent that it is not a separate and distinct clinical entity, but rather a name applied to a symptom-complex which is so closely allied to other similar conditions that no distinct line can be drawn between them; thus erythromelalgia and presenile gangrene stand in such close relationship that a case may have at first the symptoms of erythromelalgia with a red, engorged prickling skin, and later terminate as Raynaud's Disease, while cases which at first resemble Raynaud's so closely as to warrant a diagnosis as such, later undergo changes and give the pathological findings of obliterative endarteritis. Sach's has reported several cases which support this view.[1]

Not only do the conditions under discussion very closely resemble other pathological states, but the symptoms of undoubted cases of Raynaud's are by no means fixed and invariable; the usual preliminary state of syncope may be entirely wanting.[2] Further, the synonym "Symmetrical Gangrene" has been demonstrated to be incorrect, as the disease is not necessarily symmetrical;[3] nor does it in the great majority of cases progress to the stage of gangrene at all, while in a very large proportion not even a superficial necrosis and exfoliation develop.

A case reported by Barker and Sladen[4] as acrocyanosis, resembles Raynaud's in every way except for the absence of pain. The authors refer to a similar case of Nothnagel's without gangrene or ulceration.

The pathology of this condition is of necessity obscure, on account of the fact that in a large proportion of cases there is no opportunity to make any microscopical investigation of the parts affected; all that is definitely known pertains to the far advanced cases where the lesions have been so extensive as to call for surgical treatment.

A recent contribution to the literature of the subject throws considerable light on the pathology

1. Am. Jour. Med. Sc., Oct. 1908.
2. Church & Peterson, on Mental and Nervous Diseases.
3. H. Strauss in Arch. Psychiat., Vol. xxxix.
4. Jour. Nerv. and Ment. Dis., December, 1907.

of these cases.[5] In a series of examinations of pathological specimens removed in surgical operations, it was discovered that findings remained the same whether the lesions had appeared to be erythromelalgia, acrocyanosis, presenile gangrene or Raynaud's Disease.

In all of these the same lesion was found, though varying much in degree, namely, a thrombo-angeitis, the wall of the occluded vessel was normal almost to the site of the thrombus; where the condition was of long standing, the thrombus had become organized and firmly adherent to the vessel wall; the newly formed connective tissue was easily differentiated from that of "endarteritis obliterans," however, as the connective tissue cells were arranged in concentric layers parallel to the central opening or canalization, instead of the intima of the vessel.

The exact cause of the thrombus formation is not yet known; though the disease is generally held to be due to a trophoneurosis; it is evident that the early symptoms, local syncope and asphyxia, are due to alternate vascular spasm and relaxation, and it is in this stage only that the treatment by hyperemia can be of use. It requires no argument to show that it cannot fail to have a marked effect on the blood-vessels, their tone and the local intravascular blood-pressure.

In the case which I will cite, it seems well established that the improvement in the symptoms followed as a direct result of the treatment mentioned. While it is true that the disease is one which is apt to improve spontaneously at any time, yet the fact that in this case various remedies were tried over a space of several months without any effect whatever, and that improvement was immediate on the institution of treatment by hyperemia, demonstrates, apparently, that its action was directly beneficial.

The family history of the patient shows a marked tendency to nervous instability. At the age of seventeen she was obliged to give up school on account of extreme lassitude with insomnia; at this time there was some mental depression. In November, 1908, while the general condition of the patient was much improved over that of the previous winter, the first symptoms of local trouble in the feet appeared, the third toe of the right foot was at times decidedly numb, with peculiar sticking prickling sensations; at times it would be rather pale or bleached, then would become distinctly cyanotic and blue.

In February, 1909, the symptoms had become much more marked, and the asphyxia at times very marked, especially on first arising in the morning; the pain was at these times very severe. The dorsalis pedis pulse was still preceptible. A small blister, filled with clear serum, had formed on the end of the toe and burst; this process was often repeated, each time causing severe pain. It was at this time the patient was shown to the Vigo County Medical Society.

As all of the usual forms of treatment had been tried without affording any relief, the treatment by hyperemia was begun.

A small rubber band was applied snugly around the base of the toe for 15 minutes at a time, at intervals of four hours. The relief afforded was immediate, if applied during an attack of asphyxia and pain, the attack would immediately cease; if applied in the beginning of the attack, it would be prevented from developing.

After a few weeks, the treatment was discontinued. The attacks had ceased for more than a week, but they immediately returned. The treatment reapplied was again efficacious; after about six weeks the attacks ceased and have not returned. The third toe of the left foot, which had also become slightly affected in February, 1909, also was treated successfully in the same manner. In the summer and fall of 1909 the tips of the ears and the tip of the nose became slightly involved, but responded immediately to treatment.

Since that time there has been no return of the malady and the patient remains in good health.

The treatment by hyperemia has been reported several times, but is not usually mentioned in current text-books. The case, therefore, seems to be of sufficient interest to report.

5. Buerger, Leo: Am. Jour. Med. Sc., October, 1908.

Recent Advances in Knowledge of Typhus.—Joseph Goldberger and John F. Anderson, Washington, D. C., state that the great advance that has been made in the knowledge of typhus is the direct outcome of the discovery that the disease may be inoculated in the monkey. They conclude (1) that satisfactory evidence that the blood of the monkey infected with typhus is virulent in the prefebrile stage, but has not yet been adduced, and (2) that the blood of the monkey may still be virulent twenty-four to thirty-two hours after the return of the temperature to normal. Transmission by the louse explains why typhus has been a disease peculiarly associated with misery and poverty, why it has been a vagabond's disease, and a disease of jails and army camps. It is demonstrated that this disease, instead of being the exotic plague that it has almost universally been considered, has actually been endemic in this country for many years.—Abstracted from *Jour. A. M. A.*, Aug. 17, 1912.

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EDITORIALS

RECENT ADVANCES IN OUR KNOWLEDGE OF MEASLES

Until the time arrives when we can speak authoritatively of measles as due to a definite organism we must needs work more or less blindly in the pursuit of the etiologic factors, for as yet no organism has been isolated which will fulfill all of Koch's postulates. However, within the last few years much experimental work has been done on the infectivity of the disease, and the results promise a solution of the etiologic problem ere long.

Probably the most recently published summary of the work along this line is that of Anderson and Goldberger,[1] who have contributed somewhat considerably to the literature on the subject previously. They express considerable surprise at the inconclusive data on which has rested for years the general belief that the infection of measles is contained in the blood and in the nasal and buccal secretions, and perhaps in the scales, and remark that previous to Hektoen's work in 1905, the proof of the infectivity of the blood was inconclusive. The latter's results, however, left no doubt as to the presence of the virus of measles in the blood for the first thirty hours of the eruptive period. Clinical observations and Mayr's experiments on children made it fairly certain that the nasal and buccal secretions were infective for man, and he also succeeded in showing that the scales did not contain the virus of the disease. Josias first attempted to inoculate the monkey with measles after having received the inspiration from Chavigny, who observed a monkey that had developed measles after having been in close contact with a case of the disease in his keeper. Some positive results in infecting monkeys were obtained in 1898 by Josias, but Grunbaum, in 1904, reported negative results in his attempts to infect two chimpanzees by injecting blood drawn from the median basilic veins of measles patients.

Appreciating the importance of measles in our morbidity and mortality statistics, Anderson and Goldberger determined to try out further the susceptibility of the monkey to the disease. Hence they began early in the summer of 1910 by inoculating two Rhesus monkeys with blood from a measles patient. A slight rise in temperature eleven days after inoculation was noted in each case. Similar results were obtained in another pair of monkeys. The blood from a third patient was inoculated into three more monkeys and was followed by a slight rise in temperature of one of the animals ten days after inoculation, with the appearance of a few papules on the face, brows and chin, together with a diffuse erythema of the brows and eyelids. At the end of four days the eruption had perceptibly faded and was followed by a fine brany scaling at the site of the fading papules. Although this was considered as a probable mild attack of measles, yet an attempt at passage with blood drawn soon after the eruption was first noted resulted negatively. Desiring to obtain blood for inoculation as early in the disease as possible, a fourth patient's blood, drawn fourteen hours after the eruption first appeared, was injected into two Rhesus monkeys. In ten days both animals showed a distinct rise of temperature, and both developed an eruption. The heart's blood from both of these monkeys inoculated into other monkeys produced febrile reactions and eruptions. This strain of measles virus was successfully propagated by inoculation through six monkey generations.

Since this work was reported, three papers by different workers have appeared, corroborating the susceptibility of the monkey to measles, viz., those by Hektoen and Eggers, Nicolle and Conseil and Lucas and Prizer. The last-named authors are the first to report the observation of Koplik's spots in the monkey, a diagnostic symptom so commonly made use of early in a suspected human case.

From their work, it had seemed to Anderson and Goldberger that the susceptibility of the monkey to measles was quite a variable proposition, and they set about to determine if possible the time elements of the infectivity of the blood of a measles patient. Realizing that the blood from the first three patients had been drawn after intervals of at least twenty-four to forty-eight hours after the first appearance of the eruption, while the more virulent blood of the fourth patient was taken less than fourteen hours after the appearance of the eruption, they at once suspected measles of being a disease in which the infectivity of the blood was more or less limited to the early period of the disease, as in yellow fever. On this hypothesis they drew blood from

1. Am. Jour. Diseases of Children, July, 1912, pp. 20 to 27.

a patient with measles about six hours before the eruption first appeared, and again exactly twenty-four hours later, a third bleeding forty-five hours after the second and a fourth forty-eight hours after the third. At least two monkeys were inoculated from each bleeding as soon thereafter as possible. Both animals inoculated with the blood drawn before the appearance of the eruption gave a definite febrile reaction, but no eruption; all three of the animals inoculated with the blood drawn eighteen hours after the appearance of the eruption gave well-marked reactions, including an eruption and respiratory involvement; no evidence of a reaction in one and at most a very doubtful reaction in the second of the two monkeys inoculated with blood taken sixty-five hours after the appearance of the eruption; and no indication of a reaction in either of the two monkeys inoculated with the 113-hour blood. Taken with the results reported by other observers, these data point to a period of infectivity of the blood beginning at least twenty-four hours before and continuing for about twenty-four hours after the first appearance of the rash. Twenty-four hours after the appearance of the eruption the infectivity of the blood for the Rhesus monkey appears to be greatly lessened and becomes progressively less thereafter.

The first indication of a reaction in the monkey is usually a rise in temperature, especially a morning rise, with a sustained or higher reading in the afternoon; the temperature may remain at about the same level for four or five days and then drop rather sharply and remain down unless complications exist. The eruption usually begins about the third day after the rise in temperature, though occasionally coexistent with it, or may be as late as the fourth or fifth day, usually appearing first on the chest or abdomen from whence it may spread to the thighs, arms and face. Occasionally the eruption begins to fade at the site of first appearance while still appearing in other parts. Branny desquamation may follow the eruption. While the appearance of the eruption varies just as in human measles, yet the typical rash first appears as minute red spots, not infrequently coalescing, forming large patches which soon begin to fade, but a stained spot is apt to persist for several days. Not invariably is the eruption present, but blood from monkeys with a distinct febrile reaction, and with or without the respiratory symptoms has been found infectious. Coryza and coughing are frequent, and in some instances an animal has been killed and found to have a bronchopneumonia, or even a lobar pneumonia. Some of the monkeys showed as typical a picture of measles as is seen in a well-marked human case, and as above noted, Koplik's spots have been observed by Lucas and Prizer. Furthermore, a monkey that has had a definite reaction has been found to be immune to a subsequent inoculation of the virulent blood.

After determining the inoculability of the blood of measles into the monkey, Anderson and Goldberger set about to determine the nature of the virus as it exists in the blood, and made experiments on its filterability, resistance to drying, to heat, to freezing and to age. They found it to be capable of passing through a Berkefeld filter, of resisting desiccation for twenty-five and one-half hours, of being destroyed by heat at 55° C. for fifteen minutes, of resisting freezing for twenty-hours and of retaining some possible infectivity after being kept twenty-four hours at 15° C.

They made further experiments on the infectivity of the nasal and buccal secretions from cases of human measles, using serial inoculations at different stages of the illness. It was found that these secretions were infective for the monkey at the time of the first appearance of the eruption, and again forty-eight hours later, and that this infectivity was due to a living virus, susceptible to transfer from monkey to monkey by blood inoculation. Further detailed experiments to determine the time limit of infectivity for such secretions were made and positive results obtained only with secretions collected in the twenty-four- and forty-eight-hour period of the eruption. These experiments, however, they do not feel to be conclusive, but sufficient to suggest a reduction if not a total loss of infectivity of the nasal and buccal secretions with the approach of convalescence.

Three experiments made to determine the infectivity of the measles scales collected from human cases from four to seven days after the eruption failed absolutely in every one of the six monkeys. These results tally with those of Mayr in children. Although many cultures were made with measles-blood known to be infective by monkey inoculation, in no instance did these observers obtain a growth that appeared to have any etiologic relation to the disease.

DIARRHEA OF GASTRIC ORIGIN

There is no question but that the terms "toxemia" and "gastro-intestinal auto-intoxication" have for a long time been covering a multitude of diagnostic sins. It has been the hope of the past few years that the laboratory would lend some considerable light in clearing up the essential

etiologic factors producing the syndrome of symptoms which characterize the conditions we have been so naming. Among such conditions in which we are getting light through the laboratory is that of a diarrhea due primarily to a gastric anacidity, a very interesting and conclusive discussion of which is published by Vander Hoof in the August number of the *American Journal of Medical Sciences.*

The author prefaces his discussion of the subject by a few general dicta, wherein he mentions the fact that chronic diarrhea, being commonly classed among conditions whose causes are obscure, must of necessity have a most unsatisfactory treatment. Diarrhea being a symptom rather than a disease should be regarded as the expression of a motor reaction of the intestines to irritants, such irritants being chemical, vegetable or animal, while a purely functional diarrhea occasionally ensues from an irritated nervous mechanism. Whatever the irritant be, the action results in the production of a pathologic acceleration of intestinal peristalsis. Although some structural change in the intestinal walls is associated with the increased peristalsis, yet such may not be the case, and a diarrhea whose origin lies in the presence of irritants within the bowel may later be perpetuated by a development of definite changes in the mucosa. He believes such to be probably the case in the form of diarrhea due to gastric disturbance, and declares that such instances are not at all uncommon while the results of treatment are often brilliantly successful. Diarrhea of gastric origin may depend on either a primary or a reflex cause, most commonly a condition of anacidity, occasionally pyloric insufficiency, and rarely hyperchlorhydria.

In the first two groups, insufficiently prepared food passes into the intestine, acting as a direct irritant, or undergoing changes resulting in the production of irritant substances, while in hyperacidity it is thought that the excessively acid secretion is sufficient to set up increased peristalsis. Gastric anacidity is applied by the author to those cases which show after an Ewald test breakfast no free hydrochloric acid and a total acidity not exceeding 20 per cent. It occurs as a purely functional disturbance either temporarily or over prolonged periods of time with retained ferment secretions, in achylia gastrica, in pernicious anemia and certain metabolic disorders as diabetes, and in carcinoma of the stomach.

The author bases his conclusions on a statistical study of 500 patients from records of 2,000 private patients examined in course of general diagnostic work in internal medicine, and not at all confined to diseases of the stomach. Gastric analyses were made only in the presence of gastrointestinal symptoms or when deemed necessary to establish a diagnosis. Hence the incidence of gastric anacidity to the other lesions of the system cannot be exactly expressed. Of these 500 patients, eighty-one or 16.2 per cent. showed gastric anacidity. In a much larger series, Kelling reports 521 cases out of 3,147 patients, or 16.5 per cent. of anacidity. Of the author's eighty-one cases, twenty had gastric carcinoma, twenty-two were classified under the term neurosis, five were evident cases of chronic alcoholic gastritis, while the remainder were regarded as reflex conditions from the following conditions: chronic appendicitis, seven cases; cardiovascular disease and lesions of the female pelvic organs, each four cases; cholelithiasis, three cases; pernicious anemia, pellagra, chronic pulmonary tuberculosis and eye strain each two cases, and one case each of hysteria, peritoneal adhesions, benign tumor of the stomach, myxedema, chronic influenza and oral vertigo. Of 681 cases diarrhea was a prominent symptom in thirteen. Excluding two cases of pellagra and the patients with malignant disease of the stomach, there were in the remaining fifty-nine cases of anacidity eleven cases with diarrhea or approximately 18.5 per cent. These eleven form the basis of the article and most of them occurred in the group of patients in whom no organic cause could be assigned for the anacidity.

A rather characteristic clinical history is the following: Mrs. C., aged 39 years. Date, August 1, 1909. Complaint, pain in back, right side and lower abdomen. History, patient says that her digestion is "quite good considering all she has the matter with her." Appetite good; occasional attacks of "biliousness," associated with sick stomach and vomiting, occurring only in the summer. No sour stomach, no belching, considerable borborygmus; "dysentery" every summer but not sufficient to confine her to bed. Occasionally blood and mucus in the stools. Principal complaint severe backache, pain in both flanks and in

lower abdomen. Feels as if everything would drop out of her when she stands. No cramps. Examination: Heart and lungs, glandular system and deep reflexes negative. Thin abdominal walls with visible peristalsis. Stomach on inflation much enlarged and displaced. Whole right kidney easily palpable. Slight diffuse abdominal tenderness but no masses. Bismuth skiagram shows pylorus just to right of navel; lesser curvature below navel and upward on the left side parallel to the spine, the greater curvature reaching almost to the symphysis. Gastric analysis: Test breakfast after one hour: 9 c.c., no free hydrochloric, total acidity 6, no lactic acid. Patient treated in Johnston-Willis Hospital for six weeks with distinct improvement. Adhesive straps to abdomen with much relief. Dec. 23, 1909, patient has gained 20½ pounds; much improved in strength, adhesive straps to abdomen continued; relief of abdominal symptoms.

Other case histories show a characteristic matutinal diarrhea, in some cases lasting for years, which symptom practically always yielded to the administration of large doses of dilute hydrochloric acid.

While most of the patients suffered with symptoms referable to the stomach, yet in a certain proportion the complaint was limited to the state of the bowels, and in a still smaller number gastric anacidity existed with absolutely no symptoms on the part of the gastro-intestinal tract. The clinical features of diarrhea secondary to the gastric anacidity as described by the author are clear cut and definite in the majority of instances so that not infrequently the diagnosis is suggested before the stomach analysis is made. The leading symptoms are enumerated as follows: 1. Diarrhea of the early morning type and usually ending by the middle of the day. Occasionally the diarrhea alternates with constipation, but such constipation may be attributed to the full doses of astringent drugs with which these patients are so often treated. 2. Character of the stools: The bowel movements are liquid, inoffensive and lienteric, especially for fruit and vegetables. In other cases the stools are soft and yellow with an excess of fatty acid crystals. Mucus and blood occasionally occur but are not the rule. The presence of trichomonads was noted in three of the author's cases. 3. Flatulence and peristaltic unrest is the rule, especially in the early morning. With this there may be griping pains throughout the abdomen, although most patients are free from it. Bladder irritability relieved after defecation is not uncommon. 4. Gastric symptoms are often lacking or overshadowed by the condition of the bowels. The absence of stomachic symptoms is rather striking in this group, the appetite being generally unimpaired although the patient is afraid to eat. 5. Loss of weight and strength may develop quickly after the onset of the intestinal disturbance. Distinct weakness and prostration may obtain even in the absence of a diminution of body weight. Early in the disease and in the absence of complications the patient may not look ill, although some may show a marked secondary anemia quite distinguishable, however, from the blood picture of pernicious anemia. 6. Indicanuria is pronounced in most cases. Muscular pains and slight recurring arthritis are not uncommon, or there may be a definite neuritis for which hydrochloric acid acts as much as a specific as do the salicylates in acute rheumatic fever. 7. Appearance of the test breakfast: The ingested food remaining for so short a time relatively in the stomach, there often occurs no remnant of the Ewald breakfast after the lapse of one hour. Bread particles are coarsely divided and show no evidence of having been acted on by any digestive agent, and the fluid portion is clear, thin and colorless without visible blood or mucus. The free hydrochloric acid test is negative, and the total acid is usually below 10 per cent. Though not usually present, lactic acid is occasionally so.

The prognosis depends largely on the condition of the bowel wall, and this in turn on the duration and intensity of the accompanying bacterial infection. As shown by Herter, the defensive function of the stomach against bacterial infection is broken down by the absence of the hydrochloric acid and as a result the undigested particles of food may carry with it a host of accidental saprophytic form of bacterial life. Once into the intestine such bacteria come in contact with the obligate and well adapted parasitic forms of the intestinal tract. As a result the mucous membranes of the digestive tract are almost constantly in a state of excessive irritation, which incites excessive peristalsis and diarrhea

with a consequent establishment of a vicious circle.

The essential point in the treatment of patients with gastric anacidity is the administration of large amounts of hydrochloric acid. The usual dose of 10 or 15 drops of the official dilute hydrochloric is entirely inadequate. The remedy should not be regarded in these cases as a drug but should be given for the purpose of supplying artificially a substance which the normal stomach secretes regularly and in good quantity. Not only does it convert the pepsinogen into pepsin but on reaching the duodenum it serves as a hormone or "chemical messenger" to start the flow of pancreatic secretions. The chief obstacle in the use of this acid is the difficulty of giving it in sufficient amount since the throat will tolerate only weak solutions. A large diluent being necessary it is the author's custom to prescribe 30 drops of the official dilute hydrochloric acid in a full glass of water one-half hour after meals, to be repeated again in a half hour, or a total of 180 drops per day. Because of its palatability, the author has latterly prescribed tablets of acidol for the mineral acid, this substance being a synthetic product, the hydrochloride of betain, a substance derived from molasses in the manufacture of beet sugar. Dissolved in water or in the stomach, acidol gradually liberates hydrochloric acid. Strong meat broths as the first course of a meal, preceded by several doses of tincture of nux vomica, 30 or 35 drops to the dose, are used to stimulate the glands of the stomach to resume their function. The patients are encouraged to have their foods well salted that the chlorine supply of the body may be ample for the production of hydrochloric acid. Whatever limitations of dietary are prescribed should be in the form of proteids. Buttermilk is an especially valuable article of diet in gastric anacidity, and most patients can be induced to consume three pints a day. Should the general nutrition be impaired and visceroptosis and possibly motor insufficiency of the stomach be present, considerable benefit may be derived by the recumbent position for an hour after each meal, or by lying on the right side. An abdominal supporter occasionally affords relief and general conditions such as anemia, nervous states, etc., must be carefully supervised.

EDITORIAL NOTES

Make a note of the change of date of this year's session of the Indiana State Medical Association. Indianapolis is the place, and the time is Thursday and Friday, October 10 and 11.

Secretaries of county societies are urged to see that the election of delegates to the State Association session is held in September, providing such election has not heretofore taken place. The result of the election should be mailed to Dr. Allen Pierson, Spencer, Chairman of the Committee on Credentials.

A daily paper in one of our Indiana cities recently published an item from a country correspondent which reads as follows: "Dr. Smith, who was formerly a doctor in A——, is now practicing medicine here." Presumably Dr. Smith was not practicing medicine at his former location, it may be for want of patients, or perhaps he was a "hoss doctor" and as such could not be classed among those who practice medicine.

That man in Mexico who lived to be nearly two hundred years of age, as reported proved by the church records, must have found "the fountain of perpetual youth" which through error was sought by Ponce de Leon in Florida. To be married for the tenth time when past one hundred and fifty years of age, and to have been the father of a large number of children by that marriage is enough to make the Mormon elders green with envy. And what a showing he could have made had he been a Mormon.

It is hoped that the change in the date of this year's session will not seriously inconvenience any of the members who have made their arrangements in accordance with announcements of the date of this year's session as published earlier in the year. The Committee on Arrangements has decided that it will be possible to have a much more successful meeting early in October, and unusual effort is being put forth to offer a program of scientific interest and entertainment which will draw a large attendance.

Most of the Indiana cities and towns suffer from a torrid atmosphere most of the time during July and August, but this year there has been little occasion to seek the northern resorts in order to escape the heat if not to secure rest and recreation. The favorable climatic conditions should not prevent doctors from taking vacations, and we hope that not one of our readers will fail to take an outing before the frosts and biting cold of fall and winter make outdoor life more or less disagreeable. "All work and no play makes Jack a dull boy" applies to grownups as well as children, and a week or a month near mountains, ocean, lake or stream, remote from the scene of one's labor, stimulates good health, disposition and renewed energy.

The medical defense feature as one of the benefits of membership in the Indiana State Medical Association went into effect Jan. 1, 1912. The committee in charge of the fund was about to report to the Association that up to the present time there had been no demands on the fund when a message was received to the effect that suit had been brought against one of the members of the Association who is entitled to defense by the Association. The committee acted at once by employing attorneys and taking other measures to defend in a proper manner the unfortunate member. The outcome will be awaited with interest, but whatever it may be, the value of medical defense to members of the Association will be demonstrated.

The September number of The Journal will contain the program and committee reports for the Indianapolis session of the Indiana State Medical Association. The Constitution and By-Laws provide that all committee reports shall be published in The Journal in advance of the session at which such reports are to be presented, and this is with the distinct purpose in view of giving the members, and especially the members of the House of Delegates, an opportunity to give the reports careful consideration, and also for the purpose of doing away with the necessity of spending time in the reading and presentation of the reports. It is presumed that members of the House of Delegates will be thoroughly familiar with the reports and ready to act on them when they attend the Indianapolis session.

One of our exchanges says that not as many doctors drink intoxicating liquors as formerly and that those few who do drink do so moderately.

We have never thought doctors in general were much given to drinking, but we do believe that all are more temperate than they were a few years ago. This is quite evident to those of us who for many years have regularly attended the large medical sessions, and it also holds good in most communities.

The truth of it is the professional man, like the business man, has discovered that to be successful requires his best physical and mental equipment, and he soon learns that "booze," even in moderation, detracts from his fitness to do the most and the best work that is in him. He therefore decides to be a total abstainer or to come very close to being one, and when he arrives at this conclusion and practically or wholly cuts out alcoholic beverages, after having been addicted to their use, it speaks well for his good sense and firmness of character.

This is the season when the annual toll is paid to the grim destroyer, typhoid, and while it probably is too late to say "boil the water and keep out the flies" yet it becomes the duty of every physician who is called on to treat a case of typhoid to tell the afflicted family and everyone who will listen to him that typhoid comes from drinking and eating filth. Many of the summer resorts, and in particular the summer resort hotel or boarding house, are disseminators of typhoid through insanitary management. The contamination of the sources of water supply with human excreta, or the close proximity of privy valuts, with their access to flies that travel from the vaults to the kitchens and dining rooms, are the principal sources for the development of typhoid, and when we note the carelessness and indifference of many people to the precautions which should be taken to preserve our esthetic taste as well as preserve our health we wonder that there are not more cases of typhoid and bowel trouble. The members of the medical profession profit by the sins against the laws of health, but they are altruistic enough to want to prevent disease as much as possible, and that is why the public should be informed concerning the manner in which typhoid is contracted and the means of prevention.

Not a few of the opticians make a practice of writing physicians letters asking that patients requiring glasses be referred to them, and by way of compensation offering to equip the physician or any member of his family with glasses without charge. Not a few of the commercially inclined accept the bait that is offered, and aside from the harm that results from the possible misapplication of glasses, the physician who follows the practice of referring patients to opticians invariably finds that sooner or later the opticians are offering ill-founded medical advice, either directly to the patient, or to the physician who should feel humiliated to have a layman offer suggestions concerning a subject which he knows requires the judgment and knowledge of a medical man who has been trained to recognize and treat diseased conditions of the eye requiring attention. Often this results in postponement of the proper treatment for ocular diseases not recognized, or improperly recognized by the optician, with attending harm to the patient and ultimate reflection on the ability and good judgment of the family physician, who is directly responsible for the ill advice. If the patients choose of their own accord to consult laymen for their glasses and advice concerning their eye diseases, that is their business, but it is not in keeping with sound medical judgment for a physician to refer a patient requiring eye treatment to a layman.

The enterprising newspaper reporter in Paris has succeeded in obtaining an interview with Dr. John B. Murphy, of Chicago, who is exploited by the Paris newspapers as being one of America's foremost surgeons and progressive physicians. We are so accustomed to seeing J. B.'s picture and interviews in the daily papers that it does not seem unusual to hear form him in that way from far-off Paris.

But in connection with the report that a British surgeon recently increased a young man's height two inches in two months by administering the thyroid secretion of a sheep, Dr. Murphy gives out the following statement which we deem of sufficient interest to warrant reproduction:

"It is not an unusual case. We are learning much about the four mysterious glands which regulate the body's growth. The thyroid gland regulates the growth of the long bones. When these are over-stimulated in youth it causes giants; an insufficient secretion causes dwarfs.

"We can feed dogs on the thyroid secretion, beginning on one dog the first month and another the second month and so on, and produce a series of dogs of perfectly graduated size. It is like a fairy tale.

"Another gland is the so-called pituitary body, which regulates the growth of the wide bones. Its stimulation causes a broadening of the face, jaws and joints. Still another set of tiny glands, not larger than lentils, are attached to the outside of the thyroid gland. If these are removed the patient dies from violent lockjaw and convulsions.

"I may also mention the modern discovery that the mysterious organ, the pancreas, is identified with the conversion of sugar. I believe it will be possible hereafter to cure diabetes by removing the pancreas wholly or in part.

"The surgery of the future will tend more and more to the prevention of disease, instead of being the last resort in desperate cases. It must cooperate with medicine, and especially with bacteriology. Nobody dares to predict the brilliant discoveries that will be made in the next decade by means of the latter science.

"It recently was discovered, for example, that rheumatism is due to germs usually entering some diseased organ, such as inflamed tonsils, and then settling in the joints. The removal of the tonsils or the inoculation of the blood with a germ cures rheumatism. So with many other diseases. There is hardly any peritonitis now, because we have learned to operate before it reaches the acute stage."

"What are the most interesting operations in modern times?" he was asked.

"The transplanting of living tissues. It should be said that all sensational stories of the transplanting of living organs are unreliable. A transplanted organ will live but will not perform its functions, and hence is useless. Bones and tissues, however, can be successfully transplanted from one part of the body to another.

"There have been great changes, chiefly in the attitude of the surgeons toward their patients. Americans were probably the first to adopt an amiable, good-natured tone toward the patients, but I believe the Germans surpass us in this desirable quality. The less we know the crustier we are likely to be. In those former days there was much crustiness and little knowledge."

R. Stanhope Easterday, the Indiana publication committee for the Christian Scientists, has given a letter to the public press in which he praises the erratic Senator Works of California for efforts to defeat the Owen bill, and incidentally calls the attention of the public to the

basis on which Christian Scientists are opposed to the proposed health legislation.

The following specious argument is made: "Christian Scientists are not opposed to such health regulations as at present seem to be necessary and desirable. They are not opposed to reasonable quarantine measures. They are not opposed to sanitation, to pure food, pure water, or pure air. They recognize that a large number of people believe in drug medication and therefore they favor pure drugs for those who wish to depend on drugs. They have no quarrel with physicians, the majority of whom they believe to be conscientious in their efforts for the relief of human suffering." The article then charges "a certain political wing" of the American Medical Association in being instrumental in efforts "to secure legislation ostensibly relating to public health but really intended to advance the interests of these few doctors. . . . It legitimately behooves all liberty-loving citizens to thus champion medical freedom, and we hardly see how Christian Scientists could, as law-abiding and broad-minded citizens, fail to thus champion the rights and privileges of themselves and others, in the very important matter of selecting the system of healing or the practitioner of their choice."

Aside from a consideration of the inconsistency of the attitude of Christian Scientists toward quarantine laws and proper sanitation, the Christian Scientist being immune to attacks of bubonic plague, cholera, yellow fever, small-pox, scarlet fever, diphtheria, etc., the fact remains that Mr. Easterday and all those who raise his arguments against the Owen bill, are untruthful and dishonest when they claim that there is a single line in the proposed health bill which will in any way, directly or indirectly, interfere with the present right and privileges of any person to select the system of healing or the practitioner of his choice. Not one but all of those who are loudly howling about medical freedom and the possibility of having personal rights trampled on by the medical profession, are very careful to inject into the controversy a lot of misrepresentation and falsehood which does not belong there and which clearly points to the selfishness and dishonesty of those who are waging a warfare against public health legislation.

The truth of the matter is that the Christian Scientists who prate of their desire and intention to live saint-like lives, and who practice right living in its fullest sense, are first and foremost the dupes of the venal proprietary medicine interests, and secondly the victims of a species of mental astigmatism on public health legislation which amounts to dishonesty. If the Christian Science religion has anything else in it than a misguided theory concerning the cause, prevention and cure of disease—and the claim is made that it teaches good morals—it ought to stimulate a desire to recognize truth and uphold it, for if the Christian Scientists live up to their teachings concerning truth they cannot approve such arguments as have been put forth by Senator Works and by Mr. Easterday, one of whose many articles we have quoted.

Gradually our public schools are receiving the benefit of improved regulations concerning health and sanitation. In most of the city schools of Indiana the disease-breeding drinking-cup has been supplanted by the bubbling fountain, and the broom and duster have been discarded and replaced by vacuum cleaners. The open windows as a means of ventilation have been followed by the large power-driven fan, forcing outdoor air over steam-heated coils into the building, and suction fans to draw the impure air from the rooms. The dimly and improperly lighted school rooms have largely vanished, and now we find our school houses with an abundance of light coming from the proper direction, and a studied effort made to avoid disagreeable and irritating reflections or shadows. Desks are now made for and assigned to pupils with due regard to the size and health requirements of the pupils.

But there is one reform that is badly needed, and that pertains to the hours of work and the opportunities for recreation and play. The old-fashioned recess has been done away with, as also the old-fashioned playground. Instead of beginning at 9 o'clock, as was formerly the custom, many schools have classes at 8 or 8:30, and not a few pupils are expected to begin at the earlier hour and continue throughout the regular school hours. Practically all pupils in our public schools, and even in the lower grades, are not only obliged to work several hours out of school in order to keep up with the classes but are regularly assigned lessons to be learned out of school hours. We have actually known of a teacher who assigned nearly five hundred pages

of supplementary history reading for one evening, with the request that pupils would be required to give a brief synopsis of the work covered. When reminded by an irate parent that the work would require most of the night and be accomplished at the expense of other work, to say nothing of health, the teacher replied that she had done as much work when she was in school.

The playground which formerly was a place for fifteen-minute periods of healthful recreation in games and amusements before regular school sessions and at morning and afternoon recesses (long since abolished in "progressive" (?) schools), is now carefully sodded and the youngsters are enjoined to "keep off the grass" on penalty of securing a severe reprimand from teachers. Some schools make a pretense of physical culture and to visitors and in reports exhibit and talk about well-equipped gymnasiums which are little used and the advantages of which are controlled by such regulations as to hours that the whole thing becomes a farce.

What we need is a little more regard for the physical development of our children if we are to even keep up the efficiency of the American race. We cannot expect to have a sound mind without a sound body, and the present system of "cramming" in our public schools, with too little attention to the health and recreation of the growing child, is too much like running a piece of machinery without sufficient oil and repairs. Some educators are not satisfied with the lengthening of the school year to nearly ten months, and are advocating a school session for the entire year with the exception of a week's vacation during the holidays. The theory on which this plan is advocated is that it is an economic waste to have so much valuable school property lying idle during the summer months, and that it would be better for a certain type of children to have them in school during the summer months than running the streets. But is the economic waste which these educators have mentioned the only economic waste to be considered? What about the waste of human life, which is also an economic waste? Aren't the health of our children and the future productiveness of those children an asset which should be carefully guarded? Our educators seemingly lose sight of everything but the desire to crowd education to the limit and in so doing the nervous systems and physical well-being of our children are taxed beyond endurance for all but the unusually strong. In the effort to excel and to keep pace with those who are struggling to follow the prescribed courses many a child secures an education at the expense of a shattered nervous system and impaired general health.

The safe and sane way in which to carry on the education of the growing youth of this country should not be to see how much book learning can be crowded into a human mind within a certain period of time, but how well the child can be educated so that he may reach the highest state of productiveness without injury to his physical and mental makeup. Unless we do this education is a failure.

DEATHS

Mrs. Emily Shirley, aged 65, wife of Dr. Henry W. Shirley, of Shoals, died recently.

Dr. Joseph H. Clark died at his home in Princeton, July 23. Dr. Clark was born in 1843.

Dr. James I. Norman, a graduate of the Indiana Medical College in 1876, died at his home near Parkeville, June 29, aged 59.

Mrs. Mary E. Kidd, wife of Dr. W. G. Kidd, of Princeton, died recently in Los Angeles, where she had gone on a visit with her son.

Dr. Calvin Smith, for thirty years a practitioner or Farmland, died at his home July 2, aged 67 years. Dr. Smith was born in 1845.

Dr. Andrew J. Garrison, aged 59, of Indianapolis, was stricken with apoplexy July 30 while visiting at Longview Insane Hospital, Cincinnati, and died without regaining consciousness. Dr. Garrison was born in 1853.

Dr. A. S. Campbell, aged 84, the oldest practicing physician in St. Joseph County, died at his home in North Liberty August 1. He had been a resident of St. Joseph County for more than a half century.

Dr. George Louis Schwegler, formerly of Lafayette, died July 8 in Salem, Ore., where he had gone recently to practice medicine, aged 27 years. He graduated from the Indiana University School of Medicine in 1911.

Dr. J. C. Dillon, formerly of Rushville, died recently in a sanatorium at Oxford, Ohio, aged 67. Dr. Dillon was a practicing physician in Rushville until a few years ago when he entered the sanatorium for treatment.

Dr. C. R. Ramsbrok, of Huntingburg, died at his home Sunday, June 21, following an illness of eight days from pneumonia. Dr. Ramsbrok was born in Huntingburg August 29, 1870. He attended the Eclectic Medical College, Cincinnati; graduated from Medical Department of Louisville University in 1892; attended Chicago Clinical School in 1901; took postgraduate course in Illinois Medical College, in 1908, and later in Rush Medical College. He was a member of the State Association and the American Medical Association, and at the time of his death he was Secretary of the DuBois County Medical Society, which office he had held for a number of years. In addition to the practice of medicine, Dr. Ramsbrok was prominent in the business affairs of Huntingburg.

Dr. William S. Walker, for forty years a practitioner of Lafayette, died at his home June 17, following a long illness from diabetes, which finally developed into tuberculosis. Dr. Walker was born November 16, 1846, at Morristown, Tenn. He was a graduate of the Miami Medical College, at Cincinnati, Ohio, receiving his degree in 1869. After his graduation he came at once to Indiana, locating at first at Colburn, coming to Lafayette in 1876, where he practiced until shortly before his death. He was a member of the State Association and the American Medical Association, as also the Mississippi Valley Medical Association. For more than thirty-five years he was a member of the staff of St. Elizabeth Hospital, and for more than twenty years was physician and surgeon to St. Joseph's Orphan Asylum.

NEWS, NOTES AND COMMENTS

Dr. J. O. Stillson, Indianapolis, is spending a year in postgraduate work in Paris.

Dr. George M. Hayes, assistant police surgeon, Indianapolis, has recently resigned.

The regular meeting of the Tenth District Medical Society was held in Valpariaso, August 1.

Dr. W. N. Wishard, of Indianapolis, delivered the principal address at the graduation exercises of the Nurses' Training School of the Reid Memorial Hospital, July 2.

Dr. R. B. Short, of Bedford, and Miss Edna Comly, of Indianapolis, were united in marriage July 16.

Dr. Austin Funk, Jeffersonville, and Miss Norma Rike, Connersville, were united in marriage July 6.

Dr. David B. Domb, Indianapolis, is taking a postgraduate course in Paris and Berlin. He expects to be gone about six months.

Tuberculosis still leads in the number of deaths in Indiana, according to the State Board of Health report, there being 129.5 to 100,000 population.

Dr. George W. McCaskey, of Fort Wayne, was elected to non-resident honorary membership in the Michigan State Medical Society at the annual meeting held at Muskegon, July 10-11, 1912.

Dr. John J. Kyle, clinical professor of otology, rhinology and laryngology in the Indiana University School of Medicine, has resigned and has moved his office to Los Angeles, Cal.

The State Board of Health at a recent meeting condemned five school houses in Orange County, and gave the school authorities until June 1, 1913, to replace them with satisfactory buildings.

Dr. George D. Kahlo, house physician at French Lick Springs Hotel, has resigned his position to take effect September 1, and contemplates engaging in the practice of his profession in Indianapolis.

Dr. Louis Burckhardt and family, of Indianapolis, sailed for Europe August 15. The party will visit Dr. Burckhardt's birthplace in Switzerland, and will also stop in Vienna, where Dr. Burckhardt will do postgraduate work.

The State Board of Health at a recent meeting condemned five school houses and has given the school authorities until June 1, 1913, to replace them with satisfactory buildings. It also approved the report of Henry W. Klausman, city engineer, Indianapolis, concerning the construction of a proposed sewage disposal plant for the city.

From a swampy wilderness, breeding fever and ague, to a city boasting one of the smallest death-rates in America, is the development of Indianapolis in less than a century. The Indianapolis death-rate for 1911 was only 15.58 per thousand.

The State Board of Medical Registration and Examination has notified the beauty doctors of Indiana that the injection of paraffin to relieve deformities and the use of electricity on superfluous hair are surgical operations and can be done only by a licensed practitioner.

Charging that after being induced to enter the Harrell Hospital at Noblesville, Ind., a year ago, that a quart of blood was forcibly taken from his body by Dr. Samuel Harrell, head of the hospital, Herschell Bailey, of Elwood, has brought suit against Dr. Harrell, demanding $5,000 damages.

In systematizing street names, the name of the street on which Drs. Pettey & Wallace's Sanitarium is located has been changed from South Fourth to South Fifth Street, Memphis, Tenn. This change of address does not involve a change of location of the institution. Their new address is 958 South Fifth Street, Memphis, Tenn.

Dr. William Shimer, for three years assistant superintendent of the state bacteriologic and pathologic laboratory, will succeed Dr. J. P. Simonds as superintendent on August 31. Dr. Shimer is a graduate of Butler College and the Indiana University School of Medicine, and has taken postgraduate work at the University of Chicago.

Fifty-six persons have been given free hydrophobia treatment for the prevention of hydrophobia under the state's free Pasteur law, according to a statement from Dr. J. P. Simonds, superintendent of the laboratory of hygiene of the State Board of Health. Three of the patients were bitten by rabid horses, three by rabid cats and the remaining fifty by rabid dogs.

Dr. J. P. Simonds, superintendent of the bacteriologic and pathologic laboratory of the Indiana State Board of Health, has resigned, the resignation to become effective August 31. He will leave Indianapolis early in September for Galveston, Texas, where he will become a member of the University of Texas.

A report compiled by the department shows that more than 15,000 specimens have been examined during the last nine months, this being more than have been examined during any year since the department was established.

Dr. J. N. Hurty has recently announced that the State Board of Health will inspect all summer resorts in the state and those scoring less than 80 per cent. on the sanitary scale will be closed up as dangerous to the public health. The scoring is to be based on general cleanliness, sewage and garbage disposal, water-supply, presence of flies, mosquitoes, bedbugs and rats, quality and handling of the food-supply.

The fourth annual meeting of the American Association of Clinical Research will be held in New York City, at the Academy of Medicine, on Nov. 9, 1912. The sessions will be held from 9 a. m. to 1 p. m., from 3 p. m. to 6 p. m. and from 8 p. m. to 10 p. m. The evening session will be open to the public.

Notable contributions on "The Negri Bodies," on "Certain Fluids for Tubercle Bacilli in the Urine," on "Adjustment and Function," on "Psycho-Analysis and Traumbedeutung," on "A Pandemic of Malignant Encapsulated Throat Coccus," on "The Single Remedy on Indicanuria and Glycosuria," on "Disease Conditions Expressive of Correct Diagnosis," on "Biochemic Problems," on "The Two Most Far-Reaching Discoveries in Medicine," and others are to be given. Every member of the Association is cordially invited to contribute a paper. The title should be sent at once to the permanent secretary, so that the program may be completed.

Since June 1, the following articles have been accepted for inclusion with New and Nonofficial Remedies:

Urethral Suppositories Adrenal Comp. (H. K. Mulford Co.).

Vaginal Suppositories Adrenal Comp. (H. K. Mulford Co.).

Adrenal Comp. Lozenges (H. K. Mulford Co.).

Adrenal Ointment (H. K. Mulford Co.).

Adrenal Rectal Suppositories 5 gr. (H. K. Mulford Co.).

Ointment of Cargentos and Ichthyol (H. K. Mulford C.).

Syrup of Quinine with Chocolate (H. K. Mulford Co.).

SOCIETY PROCEEDINGS

STATE ASSOCIATION MEMBERSHIP

The following are the members of the Indiana State Medical Association who have paid dues since the last list was published in The Journal:

W. A. Johnson, Perrysville.....Fountain-Warren
O. F. Wellenreiter, Gessie.....Fountain-Warren
A. S. Jaeger, Newton Claypool Bldg., Indianapolis, ... Marion
T. E. Courtney, K. of P. Bldg., Indianapolis...Marion
R. C. Ottinger, Newton Claypool Bldg., Indianapolis, ... Marion
Jacob Buehler, 206 E. McCarty St., Indianapolis, ... Marion
E. C. Reyer, Newton Claypool Bldg., Indianapolis, ... Marion
G. V. Sigler, Burlington ..... Carroll
Jos. Bowen, Rushville, R. R. No. 9.....Rush
John D. Green, Manilla.....Rush
J. T. Paxton, Glenwood.....Rush
C. L. Smullen, Raleigh.....Rush
J. F. Take, Valparaiso.....Porter
M. J. Spencer, 2715 E. Washington St., Indianapolis ..... Marion
J. R. Etter, Crawfordsville.....Montgomery
E. D. Skeen, Gary.....Lake

FORT WAYNE MEDICAL SOCIETY

Meeting of March 26

Society met in regular session in Assembly Room with nineteen members present. Minutes of preceding meeting read and approved.

Dr. Morgan read a paper on "Face Presentations."

Discussion opened by Dr. Duemling. The subject is interesting from a good many standpoints. Face positions occur once in 250 cases, according to Pinard. One thing not mentioned in etiology of this condition is tumors in neck of infant. Has had one case with enlargement of the thyroid, which produced a face position. There is one impossible position of the face wherein the chin rotates into the hollow of the sacrum. This makes delivery impossible. No one would now advocate craniotomy on a living child because we have a more scientific and less dangerous operation.

Dr. Miles F. Porter, Jr.: Has seen two cases of face position. Both cases ended spontaneously. Believes that primarily operative procedures are too common. Forceps are too often used. Most cases are seen too late for internal version into a cephalic anterior position.

Dr. Porter: Braxton-Hicks method of version is the combined internal and external manipulation.

Dr. Porter, Jr., referred to the Strong method of converting face into the vertex.

Dr. Drayer doubts if face presentation occurs as often as has been mentioned by the essayist. Has seen one case of ruptured uterus from the Braxton-Hicks method of version. Favors the forceps for rotaters. Laceration is infrequent. Rotates his posterior position with axis traction forceps. Has seen no lacerations due to such rotation. Saw one face presentation which was attempted to rotate by Braxton-Hicks method. Mother died on the fifth day from ruptured uterus and cardiac thrombus.

Discussion closed by Dr. Morgan. The harm resulting from the use of forceps depends upon the man using them. The rotation frequently requires time.

Applications of Drs. Rice and Underwood were reported favorably by the Board of Censors. Motion carried that the rules be suspended and the unanimous vote of the society be cast for Drs. Rice and Underwood by the Secretary. Applications of Drs. H. V. and B. A. Blosser were received and referred to the Board of Censors.

Motion carried that the secretary send flowers to Dr. Whery, who is ill.

Adjourned. G. Van Sweringen, Secretary.

Meeting of April 2

Society met in regular session at Lutheran Hospital with 28 members present. Meeting turned over to Drs. L. P. Drayer and B. Van Sweringen.

Dr. Drayer. Case 1.—Hemorrhage of the New-Born. Negative family history. Baby five days old. Bleeding from cord and rectum. Treated by injection of blood serum of mother. In one case five years ago antitoxin was used and the baby lived. Had the same type of case as this one in the winter in which blood serum was used from everyone. Patient died. In this case 5 c.c. of the mother's blood serum was injected every four hours for six injections. Hemorrhage stopped. This case is a cure under Welch's plan of treatment. Mother of this baby ran a normal puerperium until the eighth day. On the morning of the ninth day had a chill and temperature ran up to 105° by mouth following chill. Few hours later 107 4/5 by axilla. Temperature tonight is 104° and pulse 110. Blood culture after a week is negative. Urine germ free. Hemaglobin 50 per cent. Leukocytosis moderately marked. Developed a sinus thrombosis of the broad ligament, confirmed by operation. Drainage. Emphasized the point that blood serum should be used early and in large quantity in these cases.

Dr. Porter: It has been my misfortune to see three cases of puerperal infection, cases of thrombophlebitis in the broad ligament, accompanied by chill and sweats. Two cases have large collection of pus in the pelvis more or less generalized in the broad ligaments. Cases operated. Structures so degenerated they would not hold ligatures. Third case four days following delivery. Upon examination a mass in the right broad ligament found. Another mass in connection with uterus. On opening abdomen found that the abscess had pushed the uterus over. Opened and drainage was established. The last two are strictly local and the first medical and surgical cases. After being surgically treated then if the patient has the strength to live out the infection she will get well. She vaccinates and re-vaccinates herself with this infection.

Dr. C. E. Barnett: In gonorrheal infection the majority should not be drained. The drain carries in infection. The tendency nowadays is to drain nothing but acute infections. Just had a case last week of an enormous amount of pus. No drainage. Patient getting along nicely. Giving acute cases vaccines.

Dr. Beall: Has not seen puerperal sepsis treated medically. Non-puerperal cases of infection are treated by vaccines and by intravenous use of 20 per cent. collargol. Spoke very highly of this method in the treatment of acute endocarditis.

Dr. Porter, closing: The point in drainage is the nature of the infection. Acute localized infection

which you can clean out you can close. If generally acute, drain.

Case 2.—Baby. Bad feeder. Normal labor; is at present on a mixture of one-half cow's milk with barley. Weight increased when this food was begun. Child brought in last Thursday. Would not move legs, which seemed swollen. Would scream every time she was handled. Four teeth below; none above. Negative urine. No leukocytosis. Antecedent history of miscarriage and snuffles. Is on 15 gr. of unguentum hydrargyrum 50 per cent. and orange juice. These babies that show this edema without the scorbutus are being fed all they need but not the kind of food necessary for development.

Case 3.—Man 36 years of age. Telegrapher. Father died of lung fever. Married. Four children. Had organic heart disease at 12 years; two years' illness. No typhoid. Heart is now permanently damaged. Comes complaining of constipation, vomiting and pain. This is not like attacks of cholelithiasis. Became jaundiced six months ago: stools yellow. No bile-stained urine. Blood low in hemaglobin: whites 7,500; differential, 82 per cent. polynuclears, large lymphocytes 4 per cent., small 14 per cent.; eosinophils absent. Has not lost much weight. No fat in stool. No sugar. Blood pressure 115 mm. Blood culture, one plate showed a diplococcus of unknown origin, the others were negative. Test meal: absence of free hydrochloric; no Opler-Boas bacilli. Stomach washing looks reddish. No chest signs. Spleen palpable. Liver extends 1½ inch over nipple line. This is a case of Hanot's cirrhosis. Von Pirquet negative.

Discussion. Dr. B. Van Sweringen: As I remember the description of Hanot's cirrhosis it is a febrile process and of shorter duration than this case would seem to indicate. Has never seen a case to his knowledge. As he recalls the history of a case reported, the temperature was 103°. The course of the disease was six months. The patient became intensely icteric.

Dr. Porter: If you have a continued obstruction of the bile passage you always have enlargement of the spleen. What is the objection to this case being a splenic anemia?

Dr. Porter, Jr.: Has seen two cases demonstrated. Was a very chronic condition as proved by autopsy. The disease is almost limited to males in the second decade of life. Produces intense cirrhosis, but almost never ascites. Would not almost any secondary anemia show this blood picture?

Dr. Duemling: What explains in this case the history of acute epigastric pain? Why does this not present some of the features of chronic pancreatitis? He is at the age when this disease is common.

Dr. Beall: Does not believe that that is a liver. There is a mass but it is not continuous with the liver.

Dr. Drayer, closing: Show me any other condition which fits this case and I will change my diagnosis.

Dr. B. Van Sweringen presented a section and specimen from a case of tuberculous epididymitis. Dr. Van Sweringen read a paper on "The Influence of Tympanitis in General Peritonitis."

Discussion. Dr. Porter: Agrees with Dr. Van Sweringen regarding the use of cathartics before operative procedures. The credit for agitating this is due to Dr. Edwin Walker, of Evansville. The theory advanced regarding the beneficence of tympanitis in peritonitis sounds very plausible but Dr. Porter does not agree with him. Would as soon close a belly over a pus cavity as to close one over a super-distended gut. Does not know whether it is the tympany or the toxemia which does the damage in these cases. Take a distended stomach for instance. Alarming symptoms disappear after introduction of a stomach tube. Believes that we have been abusing cathartics. Regards an oncoming tympany with alarm.

Dr. Porter, Jr.: The chief danger in giving Epsom salts according to Boose is in giving it in large doses of concentrated solution. It is still used in the same strength, given in dram doses in the Massachusetts General Hospital.

Dr. Beall: Boose says in his conclusions that it is absorbed in certain individuals. This absorption does not occur in all but he does not give any reason.

Dr. Van Sweringen closed the discussion.

Dr. Duemling presented a case of spasmodic wry-neck with a negative Von Pirquet. No leukocytosis. Case came in to-day. It is a question as to whether a cervical Pott's disease is causing this condition.

Motion carried that rules be suspended and that the secretary cast the unanimous vote of the society for Drs. H. V. and B. A. Blosser.

Adjourned for luncheon.

G. Van Sweringen, Secretary.

Meeting of April 9

Society met in regular session in Assembly Room with fifteen members present.

Clinical cases. Dr. Beall presented a case of pulmonary tuberculosis which was reported cured at the State Tuberculosis Sanitarium. Privilege was given the society to examine this man's chest. No discussion.

Dr. Drayer: Patient, man aged 38. A year and a half ago awakened in the morning suddenly with a wry-neck. No specific history. Has tried out spasmodic wry-neck and rheumatic torticolis. Both negative. Believes this condition due to a cortical lesion of the spinal accessory because there is some muscular atrophy or short muscles. Patient says that in the morning he can straighten his muscles but during the day he is compelled to turn it to right side.

Dr. Beall: Does not see why you would call it a spasmodic torticolis. Why should you be certain of a central lesion? A central lesion should involve other centers. The chances are that this is a peripheral lesion. The course of the spinal accessory is more or less exposed and subject to conditions which would produce this trouble. To rule out central lesion the fundus should be examined.

Dr. Porter: Does not think that a section of the spinal accessory would relieve this case one bit. This is not a spasm of the sterno-mastoid.

Dr. Drayer: The thing that rules out spasmodic wry-neck is the total absence of pain.

Dr. W. D. Calvin read a paper on "Some Overused Drugs."

Discussion: Dr. Gross: The overuse of drugs depends not upon the rational use but the abuse of them. What has been said of hydrogen peroxide and antiphlogistine is correct. The profession has been responsible for their great use by the laity. The prescriptions given in Dr. Calvin's paper, that is an alkaline preparation and an acid preparation with pancreatin, was therapeutically, chemically and pharmaceutically incompatible. The abuse of some drugs might be attributed to errors in diagnosis. Drugs used rationally will never result in overuse of drugs.

Dr. Morgan: While it is no doubt true that the use or the abuse of these remedies is going on all the time, they do not do the harm that is done by the in-

discriminate use of opium. The legal restriction of the sale of opium and its derivatives is not strict enough.

Dr. Porter: I think any use of antiphlogistine is a mis-use of it. Yet some of the best men are using these drugs. It does not accomplish anything more than any moist hygroscopic dressing would. No other drug in the Pharmacopeia that will control a case of uremic convulsions better than morphin.

Dr. Glock: A very much mis-used drug and one that is called to my attention daily is acetanilid or other coal tar products. The tendency of the laity is to treat every head pain as due to the same cause.

Dr. Rawles: The practitioners who have to do their own dispensing get a poorer class of articles than the city practitioner. In country work most dependence must be placed on tablet medication.

Dr. Wallace: I believe that quite a bit of the over-use of drugs is due to the element of time. Owing to large practices a physician is in so big a hurry to get to the rest of his cases that he does not pay enough attention to the use of drugs.

Dr. H. V. Blosser: I think one of the greatest causes of the over-use of drugs is the neglect of the proper study of materia medica. We ought to know more about drugs than we do.

Dr. Beall: I want to correct the false idea that glycerin is hygroscopic. By actual experiment we get mighty little water from the tissue.

Dr. Dancer: Seventy-five per cent. of the proprietary remedies brought to our office or the things sold to the laity contain alcohol. If they do not contain this ingredient they are a "fizzle."

Dr. Calvin, closing said he wanted to bring to the attention of this society drugs used and abused by the laity and by physicians. There has been a tendency to self medication by the laity.

Motion carried that a committee of three be appointed to call on Dr. Zehr for information regarding his connection with a chiropractic college. President appointed Drs. W. D. Calvin, E. E. Morgan and G. Van Sweringen.

Adjourned. G. Van Sweringen, Secretary.

Meeting of April 16

Society met in regular session in the Assembly Room with fifteen members present.

Clinical cases. Dr. B. Van Sweringen reported a case of woman 30 years of age. Has a child 1½ years old. Menses were regular following birth of child. In February suffered pain in abdomen and flowed off and on with considerable pain. The latter part of March had another severe pain. Two weeks ago had another attack of pain and fever and developed mass in pelvis. Opening abdomen found a large mass which looked like a cyst. Contents of tumor mass proved to be blood clots. Uterus formed part of cyst wall. Some infection of the clots.

Dr. C. E. Barnett: Had a case that was diagnosed as ectopic gestation which had all the classical symptoms. Took her to hospital and on opening abdomen found she had tuberculosis of the tubes and ovaries.

Dr. C. E. Barnett read a paper entitled "Some Genito-Urinary Surgery as seen in Berlin and Vienna."

Discussion. Dr. Porter: Has done more prostatectomies by the supra-pubic route than by the perineal. Latterly the choice of an operation has been about equally divided. Convalescence by the supra-pubic route is smoother than the perineal. Accidents such as result in subsequent stricture and injury to the rectum are more common in the perineal route. So far as concerns the importance of sterility following both operations, the patient's sexual powers are usually restored. I think there are instances on record where men have gone through supra-pubic prostatectomy and have later been followed with children. Thinks the operation of choice should be indicated by the case at hand.

Dr. Weaver: One is struck with the rather infrequent use of tuberculin as used abroad. Nothing was said of guinea-pig inoculation with urine of these cases.

Dr. Barnett closed discussion.

Dr. Morgan, chairman of committee appointed to consult Dr. Zehr reported as follows: Dr. Zehr made the proposition that the committee furnish some cases and allow Dr. Ross (who is the acting spirit of the new college of chiropractic) to administer the chiropractic practice.

Motion carried that committee be instructed to make specific charge against Dr. Zehr and that it be properly presented.

Adjourned. G. Van Sweringen, Secretary.

Meeting of April 23

Society met in regular session in Assembly Room, with thirty-seven members present. Minutes of preceding meeting dispensed with. Case night.

Dr. D. N. Eisendrath, of Chicago, read the paper of the evening on the subject "Surgical Infections of the Kidney." (Article appeared in July number of The Journal.)

Discussion. Dr. C. E. Barnett: Tuberculosis of the kidney is of more interest to the general practitioner. I believe we will get a reaction from tuberculous urinary cases but it will not tell if that is the only tuberculous lesion in the body. Cystoscopic examination, ureteral catheterization and the *x*-ray with injection of urine into animals are the means used to diagnose tuberculosis of the genito-urinary system. High frequency current for bladder papilloma is not good treatment.

Dr. Rosenthal: Would add emphasis to the main purpose of this paper, that is, the completeness of diagnosis is the main point of importance.

Dr. Porter: Two or three things should be emphasized. 1. Typical ureteral colic being due to something else in the ureter than stone. Can recall three cases of clinical typical ureteral colic due to blood clots. Operation demonstrated that there were no stones. 2. Cystic kidneys are usually bilateral, and it is important to demonstrate that the other kidney is in good condition. Of all the recent aids to diagnosis of kidney and bladder stones, *x*-ray is the best. I have repeatedly sounded bladders with stones without finding them. It does not always demonstrate by passing lead wire to the ureter that stone is not in the ureter.

Dr. Duemling: Outside of the pathology of kidney disease the point of this paper seemed to be the differential diagnosis as to location of the stone as found by stereoscopic examination. In a patient in whom a resection of the bowel was done for strangulation and a Murphy button was introduced, a stone in the ureter was found by this method.

Discussion closed by Dr. Eisendrath.

Society tendered Dr. Eisendrath a vote of thanks.

Adjourned, to commercial club for a smoker.

G. Van Sweringen, Secretary.

INDIANAPOLIS MEDICAL SOCIETY

Meeting of June 18

Meeting called to order by the president at 8:30. Attendance, 40. Reading of the minutes of the last meeting dispensed with.

First paper by Dr. H. A. Moore. Subject: "Prostatectomy in the Aged, with a Report of Two Successful Cases 90 Years of Age." The following abstract was furnished:

Among the indications for prostatectomy in hypertrophied glands the necessity for the use of a catheter is of itself one of the most important. Especially is this true in the light of the best statistics, which show that 5 per cent. die in three or four years and approximately 100 per cent. finally succumb as the result of prolonged catheterization. In addition to this must be included the great inconvenience, suffering, both mental and physical, and the restrictions and privations imposed on the catheter habitué. Attention of the general profession is especially called to the necessity and great advantage of early diagnosis. Age itself is not a contra-indication to the operation. Two successfully operated cases, both 90 years of age, showing good results in every way, reported in substantiation of this. End-results of prostatectomy are to be considered in two important aspects: first, freedom from obstruction; second, perfect urinary control. The writer takes the ground that the inverted "V" incision with an open operative field has all advantages to recommend it over the longer-used median incision, and to this and other important points of technic emphasized in the paper, attributes his low mortality and excellent end-results in his cases operated at an advanced age. Especial credit is given to those features which conduce to assuming the erect posture usually possible in from twenty-four to forty-eight hours. The chief contra-indication to the operation is lack of kidney function and stress is laid on the necessity of determining this in advance. The advantages of the operation described, the steps of which were illustrated with lantern photographs, are enumerated as follows: 1. The excellent exposure of the prostate in the field of vision. 2. Clear-cut incisions without laceration of the urethra and bladder neck. 3. Freedom from hemorrhage due to avoiding the bulbous urethra. 4. Freedom from shock as a result of lack of hemorrhage and no traumatism to the bladder neck. 5. Brief perineal and bladder irrigation, allowing the patient to assume the upright position early, thereby eliminating hypostasis. 6. Early removal of drainage tubes which encourages healing of the perineal wound, thereby preventing subsequent perineal fistula. 7. By not injuring the vesical sphincter, urinary incontinence is prevented. 8. Scar formation and contraction do not occur because the vesical neck is not lacerated. 9. Short and comfortable convalescence.

Second paper was read by Dr. C. F. Neu. Subject: "Nervousness in Children—Its Causes and Prevention." The following abstract was prepared from a copy of the paper:

The term nervousness is frequently used by the sick. The difference between nervousness in an adult and in a child is one of degree modified by experiences as well as mature mental and physical development. The child reacts promptly in an objective way. There are physical and mental impairments. Hereditary influences, nutritional and hygienic conditions and educational and disciplinary influences lay the foundation for the neurotic temperament. Alcoholism, syphilis, tuberculosis and the so-called functional type of nervous and mental disturbance are hereditary factors. Proper food, rest and sleep with attention to physical defects are necessary to give a child a balanced nervous organization. Injudicious education and training not only aggravate inherent conditions, but create a susceptibility or predisposition to nervous or mental derangements. Harshness, repression of child's natural feeling and indulgence are bad. Cramming in school produces nervous instability and irritability. The unborn child has certain rights. The mental condition of the mother is important. The problem is sociologic, economical, educational and disciplinary. Medical supervision and direction is paramount. Those in charge of rearing and training of children need education. Solution of the problem requires cooperation. Sociologist must improve social and moral conditions; the economist determine ways and means to alleviate the intense struggle for existence; the educationalist better understand and direct intellectual capabilities; the disciplinarian instil self-reverence, self-knowledge and self-control, and the physician supervise and direct measures conducive to the development of a healthy body and mind.

Dr. W. D. Hoskins: Dr. Neu's paper is of interest to all in the practice of medicine. Heredity as a cause of nervousness in children is not subject to much control. Toxemias, the result of nutritional disorders, are frequently overlooked as influences in mental development. Home conditions of discipline are more frequently at fault than the methods used in school. Conditions in school are usually conducive to quiet, order and self-control. Overstudy and crowding in school are a frequent cause of nervousness. The paper should be brought before the mothers.

GENERAL DISCUSSION

Dr. Dorsey: The medical profession has a tremendous duty in training children. In doing this the mother and father and the home training must be attacked. Prenatal conditions acting during a pregnancy affect the nervous condition of the child. A child not controlled at the age of 1 year probably will not be controlled by the parents. The Montessorian method of teaching is the gist of proper methods. A simple method of interesting the child individually and not forcing a group of children is the proper method.

Dr. Pantzer: The medical man is not called on for an opinion in the training of a child until an emergency exists. The influences potent at an early age may persist for a long time. Dr. Moore's presentation gives comfort to the aged.

Dr. Charleton: Prostatic surgery is well established. Frequently it is surgery of the last resort. Results have not been brilliant. Cases not selected have more than from 3 to 5 per cent. mortality. The mortality is nearer 15 per cent. Men who are aged and in an advanced condition do not bear any treatment well and a high mortality results. Some authorities insist that the so-called prostatic hypertrophy is really an adenomatous condition of the peri-urethral glands. Suprapubic operation has been claimed to be the best. The operation is major, but cases in an extreme condition must be cared for, even though the mortality is high. When the operation is successful the results are brilliant. Accidents are liable to happen. Operation is justified in all cases that are going bad. When loss of sleep and cystitis complicate a case operation is advised. Exhaustion from loss of sleep is an important

factor. Slight hypertrophy is not an indication for operation.

Dr. Bonn: Phenolsulphonephthalein is useful in testing kidney function in cases of prostatic hypertrophy previous to operation. The method of making the determination was described.

Dr. Jackson: The operation as done by Dr. Moore is an improvement over the old operation. The operation is anatomic and slight injury is done to tissue. Prevention of nervousness in children depends on the first few months of training.

Dr. Humes: Dr. Neu's paper is commendable. It is quite the rule to find conditions in the home responsible for nervousness in children.

Dr. Moore, in closing: Dr. Young claims to have operated on 103 unselected cases of hypertrophy of prostate without a fatality. The perineal route is preferred to the suprapubic. Mortality is more than 5 per cent. Operation is not done outside of hospitals in Indianapolis, where best care can be had for patients.

Dr. Neu, in closing: Family environment is of more influence in the training of a child than the school. Parents often cannot be depended on to train a child in a proper way. Physicians caring for pregnant women should furnish printed instructions. The paper was suggested by inquiries for operation or radical measures for correction of conditions mentioned. Nine out of ten of the child-delinquents are the result of bad training during infancy and youth. Instability cannot be corrected.

The president announced that there would be no more society meetings until October.

Adjourned. Homer R. McKinstray, Secretary.

DU BOIS COUNTY

The DuBois County Medical Society met in regular session July 16. Dr. E. A. Sturm was elected secretary of the society to succeed the late Dr. C. R. Ramsbrok, of Huntingburg.

Dr. Edwin Walker, of Evansville, read a paper on Appendicitis. Put patient at once in the Fowler position. No purgatives or laxatives as they do absolute harm. Advocated early operation. Operate even in moribund cases, even though bad surgery, as it gives patient a chance. Has done some operations of drainage under local anesthetic. Opiates in small doses if necessary. All food should be withheld and no enema when treating non-operative cases. In diagnosis always take rectal temperature; mouth often normal. Always make urinalysis. Salpingitis rarely sudden in onset, but could coexist. Rising pulse and falling temperature gives a bad prognosis. Location of tenderness valuable guide; make incision over that point. Pain usually in epigastrium, though soreness is generally diffuse. Has seen ruptured appendix on left side.

The following resolutions of condolence were adopted in regard to the death of the late Dr. C. R. Ramsbrok:

Whereas, The family of Dr. C. R. Ramsbrok has lost a loving and devoted husband and father, and

Whereas, The medical profession has lost a proficient and scholarly member, and

Whereas, The community mourns the loss of an invaluable citizen, neighbor and physician, be it

Resolved, By the DuBois County Medical Society that we have heard with intense grief of the untimely death of our beloved friend and comrade, Dr. C. R. Ramsbrok; that we hereby acknowledge the early departure of such a noble and scholarly physician as an irreparable loss to the profession, and that we offer our profound sympathy and sincerest condolence to his bereaved family in the great sorrow which they have sustained, and be it further

Resolved, That a copy of these resolutions be published in each of the county papers and recorded in our minutes and that a copy be sent to his sorrowing family.

The next meeting of the society will be held at Ferdinand the third Tuesday in August.

Adjourned. E. A. Sturm, Secretary.

KOSCIUSKO COUNTY

The regular meeting of the Kosciusko County Medical Society was held July 30. Minutes of previous meeting read and approved.

Following a discussion in regard to quacks practicing without licenses, Dr. Hines offered to get after them as County Health Officer, and asked all those who knew of any so practicing to let him know. He will be glad to do what he can with the society back of him.

Dr. S. C. Murphy reported on the newer things in medicine; Dr. C. C. DuBois on matters of surgical interest, and Dr. C. N. Howard on the eye. The meeting adjourned to the McDonald Hospital, Warsaw, where the use and administration of salvarsan was discussed and Dr. C. C. DuBois gave it intravenously to a syphilitic patient.

Adjourned. C. N. Howard, Secretary.

LAKE COUNTY

The Lake County Medical Society met in regular session in the University Club Rooms, Hammond, July 11, with twenty members present.

Application for membership was received from Dr. E. D. Skeen, of Gary. Following favorable report from Board of Censors Dr. Skeen was duly elected. Secretary reported the transfer of Dr. L. P. Collins to membership in the society, Dr. Collins coming from LaPorte County.

President announced the meeting of the Tenth District Medical Society at Valparaiso, August 1, also the Annual Picnic of the Lake County Medical Society, August 8, at Lake Front Park, Hammond. Plans were begun for the annual meeting of the society in November.

Dr. F. H. Fox read a paper on "Asphyxiation, Collapse and Shock." The essayist first considered asphyxiation due to the inhalation of noxious gases, of which illuminating gas was taken as the type. He considers oxygen inhalation the best treatment. Aromatic spirits of ammonia by mouth. Strychnia also good. In asphyxiation due to laryngeal obstruction, use oxygen while preparing for surgical procedures. Recommends Pulmotor when inspiration is weak.

For collapse in typhoid due to hemorrhage, use morph. gr. ¼; icebag over abdomen; operate when severe. Mild stimulants and operation in perforation. Caffein, camphor and adrenalin also used.

A. E. Oltz, of the Northern Indiana Gas and Electric Company then demonstrated the Pulmotor by means of the artificial lung, and the living subject. Mr. Oltz stated that the Pulmotor would be loaned to any physician for use free of charge.

Discussion opened by Dr. Collins. Inclined to question use of pure oxygen in all cases. Inquired as to use of morphin in shock.

Dr. Shanklin reported an interview with a representative of the Commonwealth Edison Co., of Chicago, regarding the use of the Pulmotor. Of more than forty cases treated with Pulmotor more than 50 per cent. were saved. One case, a babe of 4 months, ill with pneumonia, was successfully treated with Pulmotor when death seemed imminent.

Dr. Groman believes morphin the drug of all drugs in treatment of shock. Strychnia contra-indicated. Believes air should be mixed with oxygen in all cases of asphyxiation, except in CO_2 poisoning.

Discussion closed.

Motion carried that secretary be instructed to write a letter of thanks to the Gas Company and Mr. Oltz for the demonstration of the Pulmotor and the tender of the use of the same.

Adjourned. E. M. Shanklin, Secretary.

MARSHALL COUNTY

Meeting of June 27

The Marshall County Medical Society met in regular session at the City Hall, Plymouth, June 27, with nine members present. Minutes of previous meeting read and approved.

Dr. Hardy, of LaPaz, read a paper on Intestinal Auto-Intoxication. General discussion. Ivy Poisoning and Treatment was also discussed.

Society decided to hold all future meetings at the Plymouth City Hall.

Adjourned. A. A. Thompson, Secretary.

Meeting of July 25

The Marshall County Medical Society met in regular session July 25, with eleven members present.

The following papers were read and discussed: "Ivy Poisoning," Dr. J. W. Eidson; "Pertussis," Dr. C. F. Holtzendorff; and "Influenza," Dr. C. E. Nusbaum.

On invitation from Dr. J. W. Eidson, the society decided to hold its August meeting at Pretty Lake, in Dr. Eidson's cottage.

Adjourned. A. A. Thompson, Secretary.

THE TRUTH ABOUT MEDICINES

This department presents, in concise form facts about the composition, quality and value of medicines. Under "Reliable Medicines" appear brief descriptions of the articles found eligible by the A. M. A. Council on Pharmacy and Chemistry for inclusion with "New and Nonofficial Remedies." Under "Reform in Medicines" appear matters tending toward honesty in medicines and rational therapeutics, particularly the reports of the A. M. A. Council on Pharmacy and Chemistry and of the Chemical Laboratory.

The text on which these abstracts are based may be obtained from the American Medical Association, 535 Dearborn Avenue, Chicago.

Resor-Bisnol.—The following indefinite, vague and misleading formula was at one time given in advertisements in a number of medical journals: "A scientific combination, in nicely balanced proportions of Bismuth Salts of antiseptic acids of the aromatic series, and Resorcin. Each 100 parts contains 20 parts Resorcin, and 52 parts Bismuth Oxid, combined with antiseptic acids." From an analysis made in the Association's Chemical Laboratory Resor-Bisnol appears to be a mixture of bismuth subsalicylate, bismuth subgallate, bismuth betanaphtholate and resorcinol (resorcin) (*Jour. A. M. A.*, June 1, 1912, p. 1706).

The Value of Germicides and Disinfectants.—J. F. Anderson and T. B. McClintic have worked out a method for the standardization of germicides and disinfectants. They determined the effect of disinfectants on the typhoid bacillus as compared with the effect of phenol. The coefficient of a disinfectant may, for practical purposes, be defined as the figure that represents the ratio of the germicidal power of the disinfectant to the germicidal power of carbolic acid (phenol) the latter being taken as unity, both having been tested under the same conditions. The efficiency of disinfectants being variously affected by organic matter, the phenol coefficient is determined both in the presence and in the absence of organic matter. As illustrations of their findings the following results are given, the coefficient found when organic matter was absent being given first and that found in the presence of organic matter being given second and in parentheses: Benetol, 1.23 (.92); Cabot's sulpho-naphthol, 3.87 (2.33); Creolin-Pearson, 3.25 (2.52); Kreso, 3.92 (2.32); Liquor cresolis compositus, U. S. P., 3.90 (1.87); Lysol, 2.12 (1.57) and Trikresol, 2.62 (2.50). Dioxygen, Listerine, Phenol sodique and Platt's chlorides had no determinable coefficient. (*U. S. Public Health and Marine-Hospital Service, Hygienic Laboratory Bulletin* No. 82).

Hyomei.—Hyomei is "guaranteed to cure catarrh, coughs, asthma, colds, croup and sore throat." It is also said to cure "all breathing troubles including early consumption." Hyomei is an oily liquid, a few drops of which are applied to a piece of gauze and the gauze placed in a hard rubber "inhaler" which is sold with the nostrum. The chemists of the British Medical Association analyzed this humbug and reported that it had essentially the following composition: Oil of eucalyptus, 80 per cent.; alcohol, 10 per cent.; liquid paraffin, 10 per cent.; and creosote apparently a trace (*Jour. A. M. A.*, June 8, 1912, p. 1769).

Sargol.—Next to the widely-advertised nostrums on the market for the cure of obesity, there are probably no bigger humbugs extant than the preparations sold as "flesh builders." Some of the latter class of fakes are alleged to be local in their action—to build up the bust but to have no effect on the rest of the body. Still others, of which Sargol is one, are sold as general "flesh builders." Sargol, which if we believe the advertisements, "makes puny, peevish people plump and popular," is sold by the Sargol Co., of Binghamton, N. Y. The stuff is advertised on both sides of the Atlantic. It was recently analyzed by the chemists of the British Medical Association who reported: Sugar, 18.0 per cent.; insoluble protein (coagulated albumin?), 10.8 per cent.; sodium and potassium hypophosphites, 7.7 per cent.; albumin (soluble), 4.2 per cent.; lecithin, 1.9 per cent.; zinc phosphid, 0.7 per cent., talc, kaolin, moisture, etc. The British chemists estimated that the cost of the materials for thirty of these worthless tablets was about 2½ cents; they are sold for $1.00 (*Jour. A. M. A.*, June 8, 1912, p. 1770).

Turner Obesity Cure.—Dr. Turner's Obesity Cure belongs in the same category as the Marjorie Hamilton "cure." Money is obtained from victims under the pretense that dieting, exercise and purging are not a part

of the treatment. After obtaining the money the victim finds that he must follow a strict diet, that he must exercise and that he must take medicines, sold by the concern, particularly "Dr. Turner's Concentrated Food Tablets" and "Dr. Turner's Special Food Tablets" which, when examined in the Association's Chemical Laboratory, corresponded in composition to evaporated whey. Attempts are also made to wheedle the victims into purchasing a "To-Kalon Keapshape Corset" or a "Neal Reducing Belt." Dr. Turner whose name is used in connection with this obesity cure is also the manager of the Vanadium Chemical Company, which exploits various vanadium preparations to the medical profession (*Jour. A. M. A.*, June 22, 1912, p. 1961).

The Radium Content of Dioradin.—An examination of a specimen of Dioradin made in Holland indicated that but 1-1000 of the claimed amount of radium was present. While examination of one specimen is no proof that all specimens of Dioradin contain but a small fraction of the radium which they are said to contain, it proves at least that the manufacturer's claim should be viewed with suspicion. Physicians who are asked to use this preparation should refuse to do so until it has been approved by the Council on Pharmacy and Chemistry (*Jour. Mich. State Med. Soc.*, June, 1912, p. 358).

Taking the Measure.—At one time the Tilden Company, New Lebanon, N. Y., stood rather well with the profession and hence it has been a surprise to some that none of its preparations are found in New and Nonofficial Remedies. The reason is given in a report of the A. M. A. Chemical Laboratory on Hydrocyanate of Iron—Tilden. The report showed that the firm held the composition of the remedy a "trade-secret"—analysis showed it to be a mixture of Prussian blue and talc—and that the statements made regarding it, if not absolutely false, were at least distinctly misleading. A recent prosecution of the Tilden Company for misbranding its acetanilid-phenacetin mixture, Febrisol, shows that the firm's policies have included deception (*Jour. A. M. A.*, June 29, 1912, p. 2043).

BOOK REVIEWS

Progressive Medicine. A Quarterly Digest of Advances, Discoveries and Improvements in the Medical and Surgical Sciences. Edited by H. A. Hare, M.D., Professor of Therapeutics and Materia Medica in the Jefferson Medical College, Philadelphia. Assisted by L. F. Appleman, M.D., Instructor in Therapeutics, Jefferson Medical College, Philadelphia. June 1, 1912. Published by Lea & Febiger, Philadelphia and New York. Paper. Pp. 391. Price $6.00 per annum.

As usual for this second number of the year the subjects taken up are those of Hernia by Coley, Surgery of the Abdomen, exclusive of Hernia, written by John Gerster; Gynecology by Clark; Diseases of the Blood, Metabolic Diseases, Diseases of the Thyroid, Nutrition and Lymphatic System, by Stengel; and Ophthalmology by Jackson.

Coley's section on Hernia is unusually interesting in this number, taking up as it does rather a rare condition, hydrocele in the female, and discussing in considerable detail the questions of the prophylaxis of hernia. Some little space is devoted to the condition of inguinal hernia following appendectomy, the result of injury to the iliohypogastric nerve, a condition not very infrequent at the present time. Likewise the subject of diaphragmatic hernia is considered in some detail.

In Gerster's section much space is devoted to the surgery of the stomach, and the immense amount of work that is now being done on gastric and duodenal ulcers is reviewed with considerable pains. In the discussion on rectal carcinoma no mention is made of the rather satisfactory results recently obtained by Mayo by the use of the so-called Kraski-Mayo operation.

As usual, much of Clark's efforts is devoted to cancer of the uterus, a subject in which we seem to be making little headway. The questions of etiology, diagnosis, treatment, operative and non-operative, are very conscientiously reviewed and afford a very satisfactory summary of the data at present obtainable. The remainder of his section is taken up with a discussion of uterine fibroids, pelvic inflammatory diseases, menstrual disorders and surgery of the ovaries, bladder, ureters, etc.

One of the most interesting discussions in Stengel's section is that on diseases of the thyroid gland. Jackson's section is taken up with a discussion of diseases of the conjunctiva, cornea, uveal tract, glaucoma, crystalline lens and vitreous, retina, optic nerve and tracts.

The Diseases of Infancy and Childhood. For the use of Students and Practitioners of Medicine. By L. Emmett Holt, M.D., S.C.D., LL.D., Professor of Diseases of Children in the College of Physicians and Surgeons, New York; Attending Physician to the Babies' and Foundlings' Hospital, New York, etc. Assisted by John Howland, A.B., M.D., Professor of Diseases of Children in Washington University, St. Louis, late Associate Professor of Diseases of Children in the College of Physicians and Surgeons, New York. Sixth edition, fully revised, with 246 illustrations, including eight colored plates. Cloth, pp. 1112. D. Appleton & Company. New York and London. 1911.

The appearance within two years of this, the sixth, edition of Dr. Holt's work is sufficieint evidence of its popularity as perhaps the standard progressive pediatric work in the English language. In order that the work may not become too voluminous seventy-five pages of old material have been eliminated to make room for new knowledge. The whole book has been completely revised, many articles re-written entirely and several new ones appearing for the first time. Newer material appears in the chapters on Nutrition and Infant Feeding, Infant Mortality, Intestinal Intoxication, Pyloric Stenosis, Cerebro-Spinal Meningitis, Acute Poliomyelitis, etc. Thirty-six new illustrations have been introduced, including twelve radiographs.

In the chapter on Hemorrhagic Diseases of the New-Born we note no reference to the prognostic value attached to the date of onset of the symptoms. Credit is given Welch for the excellent work done in injection of human blood serum, and Carrell's work in direct transfusion is referred to as a valuable dernier ressort.

Not as much attention is given to the calorie method of feeding in Dr. Holt's work as finds place in most other late pediatric texts. Finkelstein's classification of cases of difficult feeding is reviewed somewhat in detail, but the present trend of the Germans toward the use of some dextrinized form of maltose to supplant milk sugar does not find favor with the author.

He maintains that maltose ferments very much more readily in the stomach than lactose, but is willing to admit that after the stomach and bowel symptoms have subsided that some form of maltose is of distinct value in rapidly increasing the weight of the child. Some modifications in his schedule for nursing find place in this edition, and in one table we note a lapse occurring between the ninth week and the third month which is unprovided for in the table.

The work is more profusely and better illustrated than ever before, and as presented bids fair to maintain the standard excellence that has been its characteristic for years.

A Text Book of Medicine, for Students and Practitioners. By Adolf v. Strümpell, Professor of Special Pathology and Therapeutics at the University of Leipsic. Fourth American edition, translated by permission from the seventeenth revised German edition. With editorial notes, additional chapters, and a section on "Mental Diseases," by Herman F. Vickery, A.B., M.D., Instructor in Clinical Medicine, Harvard University, Visiting Physician to the Mass. General Hospital; Member of the Association of American Physicians, etc., and Phillip Coombs Knapp, A.M., M.D., ex-president American Neurologic Association and the New England Society of Psychiatry, Clinical Instructor in Diseases of the Nervous System, Harvard University, etc. With six plates, three of which are in color, and 224 illustrations in the text. Volumes I and II. Cloth. Pp. 832. D. Appleton & Co., New York and London. 1912.

The seventeenth American edition is characterized by a review of the ten years' progress that has been made in scientific medicine, particularly along the lines of diagnosis. The author takes pains to explain that the more intricate problems of pathology cannot and should not be taken up in detail in a general medical text, but that the space must be occupied by that which is most practical, with a brief description of the finer details.

The general arrangement of the work is very similar to our American texts, but does not meet the American standard in some points of detail. For instance in the discussion of typhoid there is nothing given concerning the early date at which diagnosis can be made by blood culture. Typhoid vaccination is barely mentioned, and no details of the excellent results so far obtained are given. Likewise the surgical treatment of perforation and the results obtained therefrom are sadly neglected. We found no mention made of the prophylactic administration of urotropin for the purpose of destroying chronic bacilluria and consequent infection carriers.

Throughout the contagious group of diseases one notices a very positive stand on the part of the author taken in behalf of the dissemination of contagion by fomites. This is in decided contrast to the position now assumed by the sanitarians of this country, but seems to be based upon broad, careful clinical observation, and must of necessity be of value. One finds in this work rather more of drug therapy than we Americans are wont to credit of value. Perhaps in the eyes of many this is not a fault.

Volume II is essentially a text on diseases of the nervous system, something over two-thirds of the space being occupied by this discussion. It is clear cut, concise and yet satisfactory in details, and renders the text of considerable value to the internist who has a bent for neurology.

All told the work merits a distinct place in the library of the interested general practitioner who cares a great deal for reference, although data and statistics outside of the author's own experience are not as numerous as in many of our own text-books.

Recent Methods in the Diagnosis and Treatment of Syphilis. (The Wassermann Reaction and Ehrlich's Salvarsan, "606.") By C. H. Browning, M.D., Lecturer on Bacteriology in the University of Glasgow, and Ivy McKenzie, M.D., Director, Western Asylums' Research Institute, Glasgow. Octavo, 303 pages. Cloth, $2.50 net. Lea & Febiger, Publishers Philadelphia and New York, 1912.

The first half of this book deals with the theoretical questions that occur in making the Wassermann test for syphilis. The factors of error which may arise with each element used in setting up the test are fully discussed and the authors' modification of the test which attempts to avoid these errors is given. The occurrence of the positive Wassermann reaction with the cerebrospinal fluid is compared with the various precipitation tests and with the cytological examination.

The second part of the work takes up the treatment of syphilis with salvarsan and discusses the subject in a very thorough and comprehensive manner. A review of the literature together with the authors' observations on the treatment are given. One of the most interesting chapters is on the fatalities following the administration of salvarsan.

The work is very timely and gives a comprehensive review of the great mass of literature on this most important subject.

The Practical Medicine Series. Comprising ten volumes on the year's progress in medicine and surgery. Under the general editorial charge of Gustavus P. Head, M.D., Professor of Laryngology and Rhinology, Chicago Post-Graduate School, and Charles L. Mix, A.M., M.D., Professor of Physical Diagnosis in the Northwestern University Medical School. Volume I, General Medicine. Edited by Frank Billings, M.S., M.D., and J. H. Salisbury, A.M., M.D. Series 1912. Vol. II, General Surgery. Edited by John B. Murphy, A.M., M.D., LL.D. Series 1912. The Year Book Publishers, Chicago.

A clear-cut review of the important work done in medicine and surgery and in the specialties, by men who are recognized masters in their respective branches cannot help but be of great benefit to the general practitioner. The Practical Medical Series continues to do this in an admirable manner.

In the volume on Surgery is a review of an article by G. Bacilli on the subcutaneous injection of phenol for the treatment of tetanus. It is unfortunate, in view of the results he has collected, that a more detailed technic of the treatment is not given.

On the whole these two volumes come up to their usual standard of excellence.

The Care of the Insane and Hospital Management. By Charles Whitney Page, M.D.: 154 pages; price prepaid, $1.00. W. M. Leonard, Publisher, Boston.

This is a difficult subject but the volume is written by a practical man thoroughly familiar with his subject. Dr. Page has condensed the principles of the non-restraint management of the insane in this little book in a clear-cut inspiring manner. One cannot help being impressed with the authors sincerity and his complete grasp of the subject.

The book should be in the library of every insane hospital and should be read and studied by every one who has the interests of the insane at heart.

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ORIGINAL ARTICLES

GUN-SHOT WOUND OF THE STOMACH, LIVER AND LEFT BRANCH OF THE PORTAL VEIN; RECOVERY *

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INDIANAPOLIS

The successful outcome of wounds of the stomach and liver is of such common occurrence that they have ceased to be of unusual interest. The following case, however, being complicated by the severance of the left branch of the portal vein, and which, with the most simple procedure, resulted in an apparent perfect restoration of function, makes me feel warranted in reporting the case.

On the night of Aug. 23, 1911, I was called to the City Hospital to attend a woman suffering from a bullet wound of the abdomen. The patient, L. W., colored, age 35, had been shot less than an hour before by a revolver held almost against her body. I found her suffering with intense abdominal pain and distention, and with a weak, rapid, but regular, pulse. The position of the wound, about two inches below the left costal border in the mid-rectus line, was indication enough for an immediate laparotomy.

A long left rectus incision was made beginning at the costal margin, and on opening the peritoneum a large quantity of dark blood began to escape. As this was wiped out we could see the blood rapidly welling up from the right side of the abdomen near the hilum of the liver. In order to gain room in which to work, a transverse incision was made at right angles to the first through both recti as far as the right linia semilunaris. With the removal of more clots the hemorrhage became frightful. Dark veinous blood welled up in the wound and poured over the abdominal wall faster than we could sponge. High compression of the abdominal aorta was attempted, but this was difficult and seemed to do little good. Several large gauze packs were then forcibly pressed about the hilum of the liver, which controlled the bleeding considerably. These were very gradually removed and there was revealed a ragged transverse furrow through the omental tuberosity of the left lobe of the liver, together with a large hole at the hilum of the liver at the entrance of the left branch of the portal vein, from which most of the blood was escaping. Compression of the main branch of the portal vein controlled the bleeding considerably, but not entirely. The depth of the wound, together with the constant escape of blood, made suture or ligature of the wounded vessels impossible, without running a great risk of occluding the main portal trunk. We resorted, therefore, to packing as the simplest and safest procedure. On account of the diminished blood-supply to the left lobe of the liver, the bleeding from the wound of its under surface was slight and was easily controlled by gauze pressure. A long gauze sponge was tightly packed into the hole in the hilum of the liver and then laid along the groove in the left lobe. In order to hold the sponge in place, a long clamp was placed on the gastrohepatic omentum, taking care not to catch any of the important structures lying therein. The clamp was then held tightly against the gauze, which controlled the bleeding almost completely. Attention was then given to other structures and perforations on both the anterior and posterior wall of the stomach were found, which were closed in the usual manner. As the stomach was empty at the time of the shooting, there was very little soiling of the abdominal cavity. All blood clots were removed from the abdomen and pelvis and the wound closed with the Mayo figure of eight stitches. The end of the gauze packing was

* Read before the Indianapolis Medical Society, June 4, 1912.

brought out at the upper angle of the left rectus incision together with the handle of the clamp, which exerted firm pressure on the gauze, keeping it in place against the wounded liver.

During the operation, which lasted one hour, an intravenous infusion of salt solution was given. The patient left the table almost pulseless from loss of blood.

There was no abdominal distention at any time. On the third day about one-fourth of the pack was removed and the patient given soft diet. On the fifth day all of the gauze pack was removed together with the clamp. There was slight oozing of blood, but no pus. A small wick drain was placed to the bottom of the wound. On the fifteenth day the sinus had healed to the level of

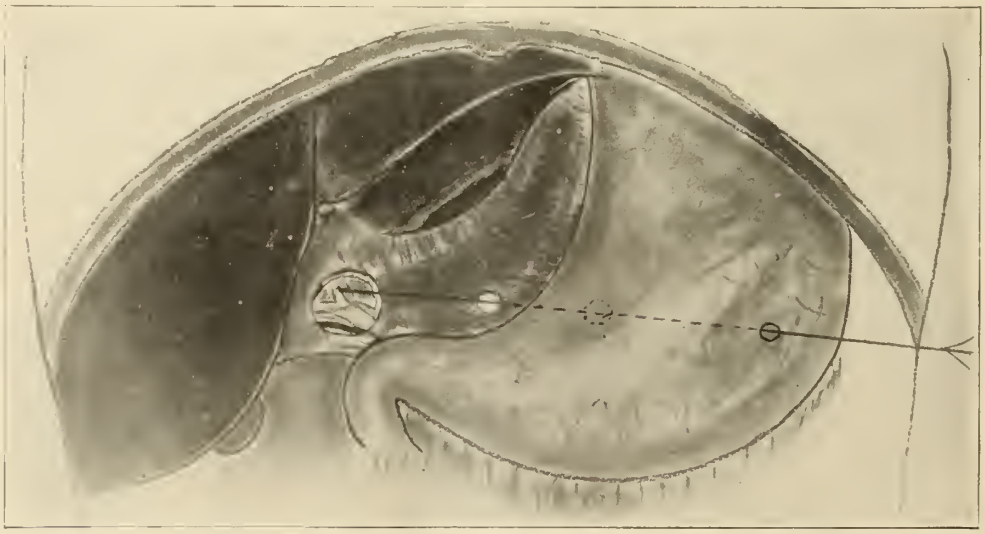

Fig. 1.—The straight line shows the course of the bullet through the anterior and posterior walls of the stomach, through the gastrohepatic omentum and left branch of the portal vein. The left lobe of the liver is rotated upward showing the grooved wound of its omental tuberosity.

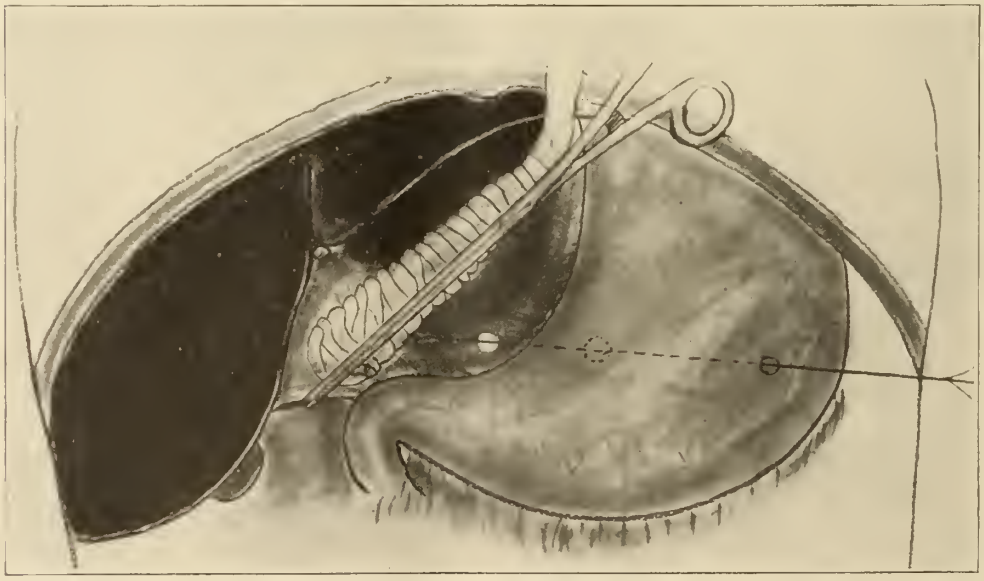

Fig. 2.—Gauze packed against the wounded vein and along wound of liver. Long forceps grasping the lower edge of the gastrohepatic omentum holds the gauze in place.

During the first two days following operation absolute quiet was maintained by the administration of large doses of morphin. During the first four days the pulse varied around 100 and the temperature between 99 and 101, after which period both gradually returned to normal. Vomiting was slight and ceased after the second day. the muscles. The patient was on a regular diet and felt so well that she insisted on going home. On September 29 the wound was entirely healed, the patient had returned to her work as bartender and was apparently suffering from no digestive disturbances of any kind.

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MALIGNANT NEOPLASMS OF THE ACCESSORY SINUSES *

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But little can be found in medical literature concerning malignant growths of the accessory sinuses, and those authors who mention the subject usually dismiss it with the statement that primary malignant tumors of the accessory sinuses are very rare.

It is a well-known fact that malignant growths of the nose and nasopharynx are not especially rare, and that such growths frequently if not usually secondarily extend into the adjacent sinuses. It is not unreasonable to suppose, therefore, that in a certain proportion of these cases in which the tumor is found involving the nose or nasopharynx and one or more of the accessory sinuses that the malignancy may have had its origin in one of the sinuses.

During the past twenty years I have seen in private practice twelve cases of malignant growths in the upper air passages and sinuses. Of this number four were seen during the later stages when the tumor mass had presumably extended from the nasal passages or nasopharynx and involved the ethmoid, antrum, sphenoid or orbit, or all of these cavities, or was found involving nasal cavities and contiguous sinuses in such a manner that it was impossible to determine the exact origin of the growth. In four other cases the tumor showed its greatest growth and activity in the sinuses, though it had extended to contiguous structures. In the remaining four cases the tumor was found in the sinuses before extension and could be diagnosed on reasonable grounds as primary to the sinus.

Most of the case reports in literature cover malignant growths of the antrum of Highmore, but among my cases the ethmoid and sphenoid sinuses have been involved collectively as frequently, and in three cases a primary malignancy of the sphenoidal sinus seems positive, though it would seem exceptional, judging from the location and anatomic peculiarities of the sphenoidal sinus, to find malignancy there except as a rare condition. I have had no cases of malignancy of the frontal sinus.

Malignant tumors of the accessory sinuses are the same as those of the nose or nasopharynx. Sarcomata and lymphosarcomata are more common, though epitheliomata are found occasionally. Mixed growths make up a goodly percentage of the cases and quite naturally offer the best prognosis. Of the sarcomata it is well known that the small round-celled variety is the most rapid grower, the most malignant, and the one most apt to ulcerate and produce hemorrhage. The spindle-celled sarcoma is of slower growth and less malignant.

Published case reports together with my own experience seem to indicate that malignancy is most common in youth and early middle age, less frequent in childhood, and rare in old age. In one of my patients, 4 years of age, a sarcoma involved the antrum and orbit, finally extending to the brain. In another case the sarcoma originated in the antrum and extended upward to the orbit and eye in a man 70 years of age. All of the other cases occurred in comparatively young adults.

The tumors arise in the mucoperiosteum and increase in size until they fill the affected sinus and then extend, usually in the direction of least resistance, to neighboring tissues. A tumor of the antrum almost invariably finally extends into the adjacent nasal cavity and nasopharynx, though it also has a decided tendency to fill the ethmoidal cells and break into the orbit. A tumor of the ethmoidal cells usually involves the nose, nasopharynx and orbit about the same time, whereas malignancy of the sphenoidal sinus has a strong tendency to become intracranial. Deformity of the parts occurs when the neoplasm presses on the surrounding walls. This bulging deformity becomes very conspicuous when the growth crowds out the walls of either the maxillary or frontal sinus. In some cases the adjacent glands become enlarged or affected and in others there is no such extension of the malignancy.

Sensory and motor disturbances are generally present in some form in all cases of malignancy of the sinuses or nasopharynx. Anesthesias and various forms of paresis or paralysis of the face or structures in and about the orbit are found resulting from pressure affecting the fifth and seventh nerves, due to extensive growths, and a rather peculiar manifestation in three cases of sphenoidal involvement has been paralysis of the external rectus muscle on the affected side as the only evidence of disturbance of function of the eyeball.

The etiology of these growths is still a matter of speculation. Inherited tendency seems to have some effect. Trauma is a factor as in the production of malignancy elsewhere, and under this head may be included the trauma which accompanies certain surgical procedures and the occasional tendency for malignancy to develop after

* Read before the American Academy of Ophthalmology and Oto-Laryngology at Niagara Falls, Canada, Aug. 22, 1912.

removal of a benign tumor. Sinusitis would seem to be a very active causative factor, though the presence of a mucopurulent secretion in a sinus affected by malignancy may be considered from the standpoint of either cause or effect, as practically all cases of tumor of the accessory sinuses are sooner or later accompanied by discharge arising as a result of the infective process.

An early diagnosis is oftentimes difficult, if not impossible, on account of the vagueness of the symptoms. A sense of heaviness or fulness in the region of the affected sinus precedes the headache and later the severe pain if pressure is great. The usual diagnostic symptoms of sinus disease are present, including the discharge which is at first mucopurulent and later may be suspicious because sanguineous. If deformity exists the presence of a neoplasm is fairly certain. Exploration will result in detection of the tumor and the character of the tumor may be determined by section, though it should be remembered that it is not always easy to separate and identify various types of malignancy by histological examination and this is particularly true in the earlier stages of malignant neoplasms. But the clinical history taken in connection with the histological examination will usually result in a correct diagnosis.

Operative treatment should be employed with due regard to the dangers of severe hemorrhage, for in most of the cases, and particularly in those that are well advanced, the patient's strength is exhausted by frequent and sometimes profuse hemorrhages which occur spontaneously, and any disturbance of the growth would but increase the dangers from this source. It would seem reasonable to suppose that if the tumor is confined to a sinus, and we are never sure that extension of the tumor has not been discovered, it would be possible to thoroughly eradicate the growth; but in practice this desired result has seldom been accomplished. Among my own cases I know of but two in which life has been prolonged for any considerable time by operative treatment, and in most of the cases it is quite possible that the interference has shortened life. However, the patient is spared much pain and discomfort if the pressure can be removed without undue risk, and in the cases where the growth has extended and obstructed the nasal passages patients are grateful for any operative measures which wholly or in part remove the obstruction and improve breathing. Tumors which extend from the ethmoid or antrum and involve the orbit are quite apt to produce very great discomfort in and about the eye, and removal of the pressure, even by a very radical operation, gives the patient relief which often lasts until death occurs from exhaustion or the results of intracranial involvement.

When the clinical and microscopical findings make the diagnosis certain, operative measures should be adopted with a definite purpose in view, and this should include a careful estimate of the probable benefit to be derived. If the patient is suffering little or no pain, and it is evident that operation will accomplish little or nothing in retarding the process or prolonging life, then the surgeon is not justified in operating and adding to the dangers already present. With the decision to operate should go the decision to make the operation radical, and in a field that has been exposed thoroughly. To remove the growth piecemeal by several operations, or to attempt removal from a field that is more or less concealed is to invite increased rapidity in the growth of the tumor on the one hand and endless difficulties or failure on the other.

If the tumor is in the antrum, frontal sinus or ethmoidal cells an external operation with temporary resection of the anterior bony wall is necessary in order to expose the field of operation properly and enable the operator to come nearest to a complete removal of the growth. If in the frontal sinus, the whole anterior bony wall should be elevated or entirely removed, and here if anywhere the radical operation of Jansen is indicated. To attempt removal of a malignant growth by the nasal route is to invite failure, for the field is invariably blocked by profuse hemorrhage and the concealed nature of the parts affected makes it next to impossible to avoid leaving areas of malignancy which in a well-exposed field by the open external method would be much less likely to be overlooked and left to hasten the death of the patient by the increased rapidity of the growth caused by the stimulation and dissemination of tumor cells through the medium of the operative interference. An over-abundance of regard for the cosmetic effect of the patient may mean failure to accomplish all that can be accomplished through operation. It is entirely probable that every patient would sooner accept deformity through a radical operation and promise of more complete removal of his malignant tumor than a preservation of his cosmetic appearance at the expense of an incomplete operation and failure to arrest the development of his neoplasm.

Tumors of the sphenoidal sinus are more difficult to expose, but removal of the middle turbinate, if it has not been removed already, and exposure of the sinus in the usual way will afford access, though the propriety of interfering with the tumor becomes questionable inasmuch as intracranial complications may follow rapidly the

disturbance of a growth the extent of which and the condition of the bony walls surrounding which are unknown.

For the removal of the tumor nothing excels the actual cautery at proper heat. Not only is there less hemorrhage, but the heat destroys the tumor cells and does not distribute them as is the case when cutting instruments are used. Sarcomata disseminate by means of the blood and the vessel walls, and it is generally admitted that operative interference, unless the trauma occurs beyond the line of malignancy is very apt to spread the malignancy and hasten the involvement of structures not previously affected. If curets or other cutting instruments are employed they should be reasonably dull to offset the tendency to increased hemorrhage from sharp cutting edges.

In those cases of sarcomata which seemingly bleed from every point that is touched, and in which actual cautery does not work successfully because of the hemorrhage, injections of boiling hot water or steam directly into the tumor mass may prove sufficient to check hemorrhage, and afterward the operation with actual cautery may be completed. I have tried this in one case, a sarcoma which completely filled the antrum and found it very satisfactory.

Operation is not indicated if the patient is greatly emaciated or exhausted from frequent hemorrhages, nor is it indicated in those cases of extensive involvement of tissues, and in which operation would be extremely hazardous as well as unlikely to produce beneficial results.

In my own experience and in the experience of many others the *x*-ray has produced no beneficial results, and presumably because the full effect of the rays does not reach the neoplasm, as also because most of these malignant tumors of the nose and accessory sinuses belong to the sarcomata which we know are seldom benefited by *x*-ray treatment and are occasionally rapidly disseminated by the rays. In the case of carcinomata the *x*-rays are thought by some to be very beneficial in retarding the growth, and it is quite probable that in a certain small percentage of cases the *x*-rays minimize the pain.

Coley's fluid has been used in several of my cases, by injection both into the growth and remote from it, but with questionable results. In one or two cases it was thought that perhaps the Coley treatment retarded the growth and extension of the neoplasm, but even this is questionable, and in one case in which the fluid was injected into the tumor mass I am inclined to believe that it increased malignant cell activity.

In all of these cases of malignancy of the accessory sinuses, whether primary or secondary, the patient should be given the benefit of everything which offers any hope, providing he is willing to undergo the proposed treatment. We may tell the relatives and friends that we think the case is hopeless, but as long as there is a fraction of a per cent. of success from the employment of any of the forms of treatment recommended by reputable medical men, we are guilty of cruelty when we advise a patient who otherwise is in good physical condition that his case is beyond help, and we can do nothing for him other than give him a sense of comfort by large doses of anodynes. The patient deserves and should have the benefit of everything which offers the slightest hope of saving or prolonging life, or adding to his comfort.

Of the twelve cases of malignant growths of the upper air passages which I have had in private practice all are dead except one, and all but two died as a direct result of the malignancy. Of the latter, one died during childbirth (probably the malignancy had some effect in producing the death) and the other one was accidentally killed. In several of the cases the diagnosis was based on the clinical picture only, and in more than half of the cases the completion of the records was made possible by reports from the attending physicians, relatives or friends. While a microscopical examination was not made in all of the cases the clinical history of those in which it was not made leaves no room for doubt as to the diagnosis. Autopsies were held in three cases and proved exceedingly interesting in showing the extent of malignant involvement.

A very brief history of my twelve cases is as follows:

Case 1. Child, 4 years old. Father died as a result of what was called cancer of the neck. Child presented bulging of the orbital wall at the inner canthus, and proptosis. History of discharge, later hemorrhages from the nose and obstructed breathing. One nostril fairly full of a fleshy tumor which bled profusely to the touch. Apparently no involvement of the nasopharynx. No histologic examination made as specimen was not obtained and operation not accepted, but tumor diagnosed from clinical history as being sarcoma. Patient presented great deformity before death, due to the extension.

Case 2. Male, aged 37. Gave history of nasal polypi and three operations for removal at different times during twelve years. Rapid closure of nasal passages and deformity of nose following last operation, and frequent and profuse hemorrhages from the nose and through mouth. Considerable pain and much discomfort from inabil-

ity to breathe through nose. Loss of sense of taste and smell. External bulging of antrum walls and nasal bone on one side of face. A fleshy growth of nodular appearance filled both nasal cavities and extended well down toward the pharynx, bleeding easily to the touch. Specimen procured and pronounced by pathologist as small round-cell sarcoma. Operation refused. Patient died three months later from exhaustion from repeated hemorrhages.

CASE 3. Male, aged 25. History of long continued nasal catarrh and unilateral discharge from nose. Fulness and discomfort under eye on affected side. Tenderness on pressure over antrum. Decayed bicuspid removed and opening into antrum made. Cavity found filled with tumor mass which could not be removed thoroughly through the opening. External operation performed one week later and anterior wall of the antrum resected. The tumor, a spindle-cell sarcoma, was removed by blunt curet and galvanocautery. Hemorrhage checked with boiling hot water. Portion of nasal wall and inferior turbinated removed. Cavity thoroughly swabbed with chlorid of zinc solution. Patient was killed in runaway three years afterward, and so far as known there had been no return of the tumor up to the time of death.

CASE 4. Female, aged 56. History of nasal catarrh and gradually increasing obstructed nasal breathing for two years and dull deep-seated headache for nearly the entire time. Involvement of the inner canthus of one eye for four months. Frequent hemorrhages from the nose. Presented fleshy growth in the nasal passage and a smaller growth at the inner canthus on the same side, involving the eyeball and causing limitation in movement. Radical operation including exenteration of the orbit, removal of a portion of the nasal bones and curettement of the ethmoidal cells. Hemorrhage checked by boiling hot water and gauze packing. *X*-ray treatment after operation. Return of growth within six months and death from meningeal involvement inside of year. Specimen lost and no histologic examination made. Growth probably sarcomatous.

CASE 5. Male, aged 70. Seen in consultation. Marked deformity from small round-cell sarcoma confined to the antrum and orbital roof. Patient greatly emaciated and operation discouraged. Before death of the patient two months later, the tumor had invaded the orbit, producing marked proptosis and destruction of sight from pressure. Patient died from exhaustion following severe hemorrhage.

CASE 6. Female, aged 14. Gave a history of having been operated for adenoids at 6 years of age, and severe nasal catarrh, and gradually obstructed nasal breathing from the time of the operation. Brought for another adenoid operation. Presented growth completely filling the nasopharynx and extending below the line of the soft palate. Nasal passages full of thick bloody discharge, but with little obstruction from growth. Patient suffering from severe deep-seated pain and much emaciated. Small piece of tumor removed which pathologist reported as being lymphosarcoma. A large portion of this tumor was removed by the cold wire snare, but attempts to remove portions of the tumor involving the ethmoidal cells and sphenoidal sinus and antrum resulted in severe hemorrhage which was checked with difficulty, and further operative interference was abandoned for the time, and later refused. Patient died two months later.

CASE 7. Male, aged 27. History of severe headache and tenderness beneath one eye. Presented bulging of the anterior antral wall and swelling of the orbital tissues and fixation of the eyeball. Radical operation with exposure of antrum and orbit by removal of anterior bony walls. Severe hemorrhage from tumor mass which was controlled by injections of boiling water followed by applications of galvano-cautery. Permission to remove the eyeball was not obtained. Tumor proved to be small round-cell sarcoma. Rapid recurrence of the growth in the orbital cavity and death of the patient within four months.

CASE 8. Female, aged 32. Mother died of malignant growth of the uterus. History of deep-seated aching at the root of the nose and eventually involvement of the orbit and limitation of ocular movement. Mucopurulent and later sanguineous discharge from nose, but no obstruction of nasal breathing. Patient presented growth involving the ethmoidal cells, the floor of the orbit and anterior portion of the eyeball, the movement of which had become restricted. Radical operation with exenteration of orbit and removal of tumor mass from ethmoidal cells by external operation through the root of the nose. Frontal sinus opened but found not involved. Tumor proved to be spindle-cell sarcoma. Patient received *x*-ray treatment following operation. No return of growth for two years or until the death of patient from septicemia following childbirth.

CASE 9. Man, aged 22. History of postnasal catarrh for five or six years and during previous year, with gradually increasing obstruction to nasal breathing, loss of sense of taste and smell and severe headache. Had been told that he had syphilis and was treated for such at Hot Springs and by quack doctors for a year during which time he had grown worse steadily. Presented fleshy growth completely filling nasal passages and nasopharynx. External deformity from bulging of antral wall and nasal bones on one side. Specimen obtained and examination proved it to be large round-cell sarcoma. Operation refused. Patient died two months later.

Case 10. Man, aged 40. Quite emaciated. History of postnasal catarrh for years and of a dull pain in the region of the nasopharynx and radiating to ear on one side for the past six months. Occasional slight hemorrhages. Presented growth high up in the nasopharynx and extending forward between middle turbinated and septum. Specimen taken and reported by pathologist as being questionably malignant. Wassermann and tuberculin tests negative. Middle turbinated removed and tumor found springing from the sphenoidal sinus. On account of hemorrhage several operations were required for removal with dull curet. Hemorrhage checked by gauze packing. Tumor mass was soft and easily removed except at base of the sinus where it seemed firmly adherent to the bone. Patient continued to fail in general health and within two months the growth had returned and filled the sphenoidal cavity and the upper portion of the nasopharynx. Patient also developed paralysis of the sixth nerve, but no other ocular complication. Severe pain in the ear and at the angle of the jaw, which was relieved to some extent by *x*-ray. Coley's fluid tried without benefit. Frequent hemorrhages, during one of which patient died six months after coming under observation. Section of tumor showed it to be sarcoma.

Case 11. Male, aged 35. History of earache and deep-seated headache for several weeks. Glands at the base of the ear swollen for four months and painful to the touch. Presented slight hyperemia of the drum membrane. Eustachian tube patent. Wassermann and tuberculin tests negative. Two months later patient presented growth high in the nasopharynx and sixth nerve paralysis as the only ocular complication. Frequent hemorrhages from the nose. *X*-ray treatment caused subsidence of glandular swelling, soreness and pain. Coley's fluid used unsuccessfully. Eventually pain became more severe, requiring increasing doses of opiates. Emaciation progressive. Patient died seven months after first examination. Autopsy disclosed sphenoidal sinus completely filled with a small round-cell sarcoma which had broken down the bony walls and invaded the cranial cavity as also completely filled the nasopharynx.

Case 12. Male, aged 51. History of severe cold in head three months before, which seemingly did not go away. Consulted physician who diagnosed polypi and operated at four sittings. Profuse hemorrhage at each operation. No relief. On examination presented a hard nodular growth high in the nasopharynx and apparently springing from the sphenoidal sinus, the upper bony wall of which could be explored with a probe. The cervical and submaxillary glands were also greatly enlarged, hard and painful to touch. Patient suffering from much headache and pain at the angle of the jaw. Specimen of tumor examined and found to be small round-cell sarcoma. *X*-ray and Coley's fluid given thorough trial, but without benefit. Patient still alive at time of this writing, but family physician reports that death is expected at any time, as the patient is greatly emaciated and the tumor has extended rapidly.

BOOK REVIEWS

A Text-Book of Pathology. For Students of Medicine. By J. George Adami, M.A., M.D., LL.D., F.R.S., Professor of Pathology in McGill University, Montreal, and John McCrae, M.D., M.R.C.P. (London), Lecturer in Pathology and Clinical Medicine in McGill University, formerly Professor of Pathology in the University of Vermont. In one octavo volume of 759 pages, with 304 engravings and 11 colored plates. Cloth, $5.00 net. Lea & Febiger, Philadelphia and New York, 1912.

The medical profession owes a debt of gratitude to the authors for this splendid Text-Book of Pathology, which in one volume embraces all on the subject that is most important for the student and practitioner. Those who are familiar with the larger work "Principles of Pathology," in two volumes, by the same authors, will be prepared to appreciate the high character of the present work, which, as the publishers well say, embodies a high degree of scholarship and literary ability. Furthermore, it is not in any sense a condensation or abridgement of the larger work, but, as stated by the authors in their preface, is "a selection and dwelling upon what we regard as most important for the student." Their object has been attained in a most satisfactory manner, and the student is given a very clear and intelligent understanding of morbid states, and the fact that such a concise yet reasonably comprehensive exposition of the subject is confined to one volume will be appreciated not only by students and teachers but by physicians and surgeons who desire an authoritative work for quick reference.

The work is of the highest possible character and deserves and will receive commendation from all who desire an authoritative text-book of Pathology. The publishers' work has been well done, the type being large and easily read, and the elaborate series of illustrations, including over two hundred new and original engravings, add to the value of the book. The authors and publishers may be proud of their work, and we believe that students and practitioners will show their appreciation in a substantial way.

Cyclopedia of American Medical Biography. By Howard A. Kelly, M.D., Professor of Gynecologic Surgery at Johns Hopkins University, Baltimore. Two octavo volumes averaging 525 pages each, with portraits. Philadelphia and London: W. B. Saunders Company, 1912. Per set: Cloth, $10 net; Half Morocco, $13 net.

This Cyclopedia of American Medical Biography in two volumes will prove a valuable addition to any medical man's library. We all should know more about the lives, characters and works of our predecessors, and Dr. Kelly has served a noble purpose in giving to us a brief outline of the life of every medical worthy who has lived in United States and in Canada. Those who have been considered eligible to notice are those who have been distinguished either as original thinkers or writers, or as teachers or great leaders in medicine in

any particular part of the country. The author has also included a number of hardy pioneers who did great work with insufficient means and assistance in the border countries in the early days. Furthermore, the author, as he states in his preface, has gathered within the two volumes those of our craft who after taking a degree have not practiced medicine but have become eminent in some other branch of science. Also he has admitted a few brief biographies of men who have done no special original work but who attained great local prominence and widely influenced their fellows by a strong personality.

To carry on this work Dr. Kelly has had the assistance of a large number of contributors who have volunteered to secure biographies from the several states and territories covered by the work. Each biography is authenticated, and references are given as to the source of information. The Cyclopedia is carried up to the first of January, 1911. An interesting feature is a short history of the various specialties together with a history of the medical department of the Army and Navy and the part that women have played in medicine.

PHARMACOLOGY AND THERAPEUTICS FOR STUDENTS AND PRACTITIONERS OF MEDICINE. By Horatio C. Wood, Jr., M.D., Professor of Pharmacology and Therapeutics in the Medico-Chirurgical College, Philadelphia; 430 pages. Cloth $4.00. J. B. Lippincott Company, Philadelphia. 1912.

The author believes that the student should have an understanding of pharmacology as a basis for practical therapeutics, and while he does not aim to present a book as comprehensive as necessary for the pharmacist he has included the essentials, a knowledge of which is so necessary for the physician who desires to prescribe intelligently and properly.

The arrangement is somewhat different than that ordinarily encountered but it should prove the most useful practically. Chapter 1 considers the subject of prescription writing, incompatibilities, mode of action of drugs, mode of administration and the circumstances modifying the action of drugs. The succeeding chapters consider subjects as follows: Drugs used to affect secretion, the nervous system, circulation, alimentary tract and metabolic processes. Other chapters consider drugs acting on the causes of disease, extraneous remedies and drugs of minor importance. Under these various heads the drugs are classified according to their physiologic effects. Each drug is considered from the standpoint of materia medica, physiological action, toxicology and therapeutics. The official preparations are also given, and in nearly every instance valuable information concerning administration is added.

The volume is of small size, authoritative, and while not as comprehensive as some of the larger works of pharmacology and therapeutics it will be found useful for students and many practitioners of medicine.

PELLAGRA. History. Distribution. Diagnosis Prognosis, Treatment, Etiology. By Stewart R. Roberts, S.M., M.D., Associate Professor of the Principles and Practice of Medicine, Atlanta College of Physicians and Surgeons, Atlanta, Georgia. With eighty-nine special engravings and colored frontispiece. Cloth, $2.50. C. V. Mosby Co., St. Louis, 1912.

It is not generally appreciated that pellagra is not confined to the poor and to inmates of asylums, that it has been reported in all but thirteen of the states, and that there are probably ten thousand cases in this country at the present time. The increasing and vital importance of this disease in the United States fully justifies the appearance of this monograph by an American author whose views are unbiased by the European dissensions over the cause of pellagra.

As the author says in the preface, there has been entirely too much speculation on pellagra and entirely too little investigation of pellagra. This book has not been written for the purpose of upholding any special etiological theory but to present the practical and important facts concerning the disease. Dr. Roberts has accomplished his purpose in a clear concise manner. The history and geographical distribution of the disease are briefly outlined. The symptoms, course, pathology, diagnosis and treatment are described from the practical standpoint of the physician, unnecessary details and theoretical considerations being omitted. The chapter devoted to treatment is not burdened with the long list of drugs that have been used in this disease but the firm conviction expressed that arsenic in some form is the best and only drug that is of curative value. The various etiological theories are stated, the arguments for and against them given, and the acknowledgement made that no one of them is proved.

The work is that of a broadminded clinician who thoroughly understands what the student and practitioner want to know about pellagra. The illustrations and printing are excellent.

A TEXT-BOOK OF PRACTICAL THERAPEUTICS. With especial reference to the application of remedial measures to disease and their employment upon a rational basis. By Hobart Amory Hare, M.D., Professor of Therapeutics and Materia Medica in the Jefferson Medical College of Philadelphia. Fourteenth edition, thoroughly revised. Octavo, 984 pages, with 131 engravings and 8 full-page colored plates. Cloth, $4.00 net. Lea & Febiger, Philadelphia and New York, 1912.

The fact that this work has reached its fourteenth large edition in less than twenty-two years is abundant testimony of the high regard in which the work is held by the medical profession. The last, or fourteenth edition, has been thoroughly revised and re-written, and many new features added which make it probably the best book on therapeutics that is published. The author has introduced a chapter on the use of salvarsan, tuberculin and vaccine therapy, and a description of Bier's method of treatment by artificial hyperemia. As in previous editions Part One deals with introductory matter; Part Two with the action of drugs; Part Three with remedial measures other than drugs, and Part Four with the treatment of individual diseases, whereby the employment of the remedies discussed in the earlier part of the book is directly applied as at the bedside.

In his preface the author says that he has recognized the fact "that the physician at the bedside needs and desires all the help he can get, whether it comes from laboratory experiment or bedside experience, and, furthermore, wants this help in a form in which he can use it when face to face with problems which are of vital importance to him and to his patients. He not only wants to know what drugs can do good and how, but he wants also to know how to use them."

Part Four, embracing nearly three hundred pages, will prove especially interesting and valuable to the student and general practitioner who desires a quick reference concerning the treatment of diseases, and when combined with a treatise on pharmacology and therapeutics it forms an especially valuable practical reference work which the author has so fittingly called, "Practical Therapeutics."

WILLIAM FREDERICK HOWAT,
PRESIDENT INDIANA STATE MEDICAL ASSOCIATION

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OFFICERS OF INDIANA STATE MEDICAL ASSOCIATION, 1912

THE INDIANAPOLIS SESSION

The annual session of the Indiana State Medical Association will be held in Indianapolis, Thursday and Friday, October 10 and 11, 1912.

Inasmuch as the Association met at Indianapolis last year and the number of THE JOURNAL appearing immediately preceding that session contained a fairly complete write-up on the city and its attractions, we believe that our readers will not expect as complete information this year, inasmuch as such a write-up would of necessity be but a repetition of what was published last year. However, for the benefit of the newer members of the Association we shall reproduce some of the things which were published last year.

Indianapolis is to-day the largest inland city on the American continent, and one of the most important railroad centers in this country. At the present time the population is over 250,000. It has 175 churches, sixty-four public schools, two high schools, one academie and one manual training, and a number of institutions of high learning, including a national trade school and technical institute, Butler College, and the Medical Department of the Indiana University.

There are many places of interest to visitors in and around Indianapolis. Fort Benjamin Harrison is located about eleven miles northeast of the city, where the Government has arranged for the care of a regiment of regulars. This post is regarded as one of the best equipped in the United States. It is reached by electric cars every hour from the center of the city.

The State House is the largest and most imposing structure in the city. It is built of limestone, the interior being finished in marble, and cost about $2,000,000. It is located in the heart of the business section, in the center of a plot of ground containing over eight acres. Here are the offices of the governor of Indiana and other state officers. It also contains the state library, state law library, state museum and offices of the various state boards.

The post-office is the only architectural representative of the Federal Government in the city. It is of generous proportions and magnificent conception. It contains all of the offices of the Government. The Masonic Temple is one of the most beautiful structures of the kind in the country, being massive and of a monumental character. It is designed along classic lines in the Greek-Ionic style of architeeture. The building was erected under the direction of the Indianapolis Masonie Temple Association in 1908. The Odd Fellows Building and Grand Lodge Hall is one of the most notable additions to the many fine structures that have been erected in Indianapolis in recent years. Though it is only thirteen stories high it is equivalent in height to a fifteen-story building by reason of the high auditorium which occupies the top floor. This auditorium will seat 1,500 persons. The new Murat Temple of the Shriners is one of the most unique buildings in America, and is one of the sights of Indianapolis.

A. B. GOOHAM,
Chairman Committee of Arrangements.

In it is located the Murat Theater, said to be one of the finest and most complete in the country. The new Merchant's Bank Building, the home of the Merchant's National Bank, is the largest in point of space and the tallest office building in the state of Indiana. It stands 135 feet above the sidewalk, is sixteen stories high and finished throughout with all of the modern improved conveniences in office building construction. It is absolutely fireproof, and all sanitary and safety devices that have proven at all satisfactory have been installed. The interior finish of the building is solid mahogany and the elevator equipment

consists of five traction type elevators. The ground floor and basement are occupied by the Merchant's National Bank and several shops. The second, third, fourth and fifth floors of the building will be laid out to be occupied by small shops and store-rooms. The balance of the building will be devoted to office purposes.

In Indianapolis the center of attraction is Monument Place, formerly known as The Circle, in the center of which is the location of the greatest monument in the world erected to commemorate the services of its citizen soldiery of the state. This is the Indiana Soldiers' and Sailors' Monument, which is the city's chief adornment. It is also one of the few real works of art in this line to be found in America. It was completed at a cost in excess of $500,000, and was dedicated with fitting ceremonies in 1902. The monument is constructed of Indiana limestone and the park in which it stands has an area of between three and four acres. The monument, including the crowning figure, is 284½ feet in height. The top of the monument is reached by an elevator and stairway from the base of the interior of the shaft. A magnificent view of the city of Indianapolis and the surrounding country is obtained from the top of the monument. Four epochs in the history of Indiana are commemorated by bronze statutes of representative men of the times occupying positions around the monument between the converging points of the intersecting streets. These are the period of the Revolution, represented by a statue of George Rogers Clark; the War with Mexico, by a statue of Governor Whitcomb; the War of 1812 and the battle of Tippecanoe, by the statue of William Henry Harrison; and the War for the Union by Indiana's great war governor, Oliver P. Morton.

Among other statues to be found on the boulevards or in the parks are those of Schuyler Colfax, who was the first citizen of Indiana to reach the vice-presidential chair. This statue is found in University Park. Governor, senator and vice-president of the United States, Thomas A. Hendricks, was one of the distinguished sons of Indiana, and to him the people of Indiana have erected a bronze statue, located on the state house grounds. Two allegorical statues representing History and Peace stand on the base of the Hendricks statue. General Henry W. Lawton, who was killed in the Philippine Islands during the Spanish-American War, is honored by a statue located on the county court house grounds. It is a tribute to his memory by the people of Indiana. Tribute to Governor Morton, the war governor of Indiana, is offered in the Morton statue, found at the east entrance of the state house. The Benjamin Harrison monument was erected in University Park, opposite the Federal Building.

Indianapolis has a large number of beautiful parks, among which may be named Riverside Park, Garfield Park, Military Park, Brookside Park, Fairview Park and numerous other park squares.

Medical men are particularly interested in hospitals, and Indianapolis has its share of such institutions. There are many hospitals in Indianapolis, both public and private, including the institutions for the insane, the blind and deaf and dumb, that are supported by the state. They are all as fully equipped and as ably conducted as any in the country. The state hospital is under the control of a superintendent appointed by the department of public health and charity, assisted by interns who are graduated from the regular medical colleges and are selected by a board of examiners appointed by the board of health. The Indianapolis training school for nurses is conducted in this institution under the charge of the hospital authorities.

St. Vincent's Hospital was erected and is conducted under the auspices of the Catholic Church of Indianapolis. The Deaconess Hospital was erected and is conducted under the auspices of the Methodists of Indiana. The Protestant Deaconess Home and Hospital is conducted under the auspices of the German Protestant Church. The Eleanor Hospital belongs to and is controlled by the Flower Mission, and is maintained by public subscription. It is a hospital for sick children of the poor.

The Indiana State School for the Deaf is neither a benevolent nor a charitable institution, but an educational institution conducted wholly as such. The Central Indiana Hospital for the Insane is a state institution and is one of the best of its kind in the country. The grounds embrace 160 acres and present a beautiful park-like appearance, adorned with magnificent native forest trees, shrubbery and flowers. The Indiana Institute for the Education of the Blind is a state institution and occupies one of the most beautiful residence sections in the city. The Asylum for Incurably Insane, another state institution, is thoroughly modern in every respect, having accommodations for 150 inmates.

The City Dispensary is under the control of a superintendent who is appointed by the board of public health and charities, assisted by five interns. Here the poor may receive free services, and the dispensary maintains an ambulance service and responds to emergency calls. Bobb's

ST. VINCENT'S HOSPITAL

Free Dispensary is operated in connection with the Indiana University School of Medicine. There are several private hospitals or sanatoria, chief among which are Neuronhurst, or commonly known as Fletcher's Sanatorium, and "The Norways," sometimes known as Dr. Sterne's sanatorium. Neuronhurst was established many years ago by the late Dr. W. B. Fletcher, and is now efficiently conducted by his successor, Dr. Mary A. Spink. "The Norways" has been in operation for many years under the ownership and management of Drs. Albert E. Sterne and Charles D. Humes.

Indianapolis is proud of her educational institutions. The Manual Training High School and Shortridge High School are of unusual excellence. Butler College is an Indianapolis institution which has an undergraduate course that is on the par with the larger universities, and it affords unusual educational advantages to a large number of young people who would otherwise be debarred from college endowment, and the buildings of the institution already represent an investment of nearly a half million dollars. It is said to have been the first college in the world to open its doors to women on exactly equal terms with those offered men. The policy of the college is to give a liberal education in the arts and sciences, and it has resisted the tendency toward excessive specialism.

To the medical men the Indiana University School of Medicine is of special interest. This school represents a union of three proprietary medical schools, and it is now the only medical institution in the state. The school is controlled by the state and receives its support from the legislature. The school was established and has been conducted on the plans approved by the highest authorities in medical education. It is the aim of the trustees of the University to provide the student in medicine the best opportunities to secure the most thorough medical training. To this end the first two or purely laboratory years are given in the extensive laboratories of the University at Bloomington, under the guidance of thoroughly trained and paid instructors, and the last two years are given in the well-equipped laboratories and lecture-rooms of the medical college at Indianapolis. The students have the advantage of clinical facilities offered by the Bobb's Free Dispensary conducted in the college building on Senate Avenue, and have access to the various hospitals where members of the faculty engage in carrying on teaching.

Indianapolis also boasts other educational institutions such as the Indiana Dental College, the Indiana Law School, the Indianapolis College of Law, the Winona Technical Institute, the Indiana Veterinary College, and numerous business schools. The Indianapolis Public Library with its 140,000 volumes, added to the Indiana State Library of 45,000 volumes located in the State House, provide ample literature for those who are interested.

In the matter of art, Indianapolis is fortunate in having the John Herron Art Institute, which has become possible in consequence of a bequest of $250,000. The Art Association, under whom the Art Institute is managed, conducts an art school which is ranked as one of the best art schools in the country, and is constantly growing in size and importance. The Art Institute boasts of a large collection of valuable pictures received by purchase as well as donation.

Indianapolis is well supplied with excellent hotels, restaurants and clubs. The Claypool Hotel, one of the finest hotels in the middle states, where all the meetings of the Association will be held, is centrally located and will provide ample accommodations for all members who desire to stop there, as also abundant room for all the activities of the Association.

Indianapolis boasts many large and important manufacturing concerns, but medical men are particularly interested in those which manufacture or supply the wants of physicians. One of the most interesting institutions of Indianapolis to physicians is the large plant of Eli Lilly & Co., devoted to the manufacture of prescription supplies. As this class of work is extremely technical it is necessary to maintain many laboratories for testing and research work. For a number of years the scientific department of Eli Lilly & Co. has grown so rapidly that a special building became necessary. Members of the Indiana State Medical Association who desire to see this department or the entire plant of Eli Lilly & Co. will be cordially welcomed. Competent guides will be available for an inspection trip at any time during business hours. The laboratory may be reached from the center of the city by taking Garfield Park car to McCarty Street.

The Pitman-Myers Company is another manufacturing house making prescription specialties, which is of interest to physicians. This house makes a specialty of standardization processes, and emphasizes the importance of having drugs physiologically standardized in order to obtain the desired effect and know the quantity of a drug required in order to obtain such an effect. This firm has a plant at 111 North Capitol Avenue, and extends a cordial invitation to visitors to the coming session of the Indiana State Medical Association.

MERCHANTS BANK BUILDING

Aside from the fact that medical schools, hospitals, manufacturing houses and numerous places of interest offer attractions, the medical profession of Indianapolis is an active force in maintaining the scientific and social standing of the Indiana State Medical Association, and as host offers a cordial welcome and generous hospitality to all members. The officers have secured a program of scientific papers that promises excellence not heretofore attained.

It is therefore with a feeling of anticipation and pleasure that the members of the Association look forward to this year's session, and the attendance should be a record-breaker.

ARRANGEMENTS

The Committee on Arrangements announces that no endeavor has been spared to insure the success of the Indianapolis session. While all previous sessions in Indianapolis have been held in the German House and the accommodations were splendid for all purposes, this year it was impossible to secure the necessary accommodations. The addition of a new section, the Eye, Ear, Nose and Throat Section, made it necessary to secure an additional assembly room, and, fortunately, the Claypool Hotel afforded all of the necessary accommodations. Under one roof we will be able to hold our general meetings, our section meetings and our commercial exhibit.

The Claypool Hotel is located most conveniently at the northwest corner of Washington and Illinois streets. It is only a short walk from both the railroad and interurban stations, and all street car lines lead to it. The courtesies of the hotel are extended to all members of the Indiana State Medical Association. Refreshments of all kinds may be enjoyed any time during the session.

ENTERTAINMENTS

The only entertainment during the session will be given at the Claypool Hotel, Wednesday evening, 8 p. m. It is to be a smoker, with refreshments and an array of entertainments. This is given by the Indianapolis Medical Society, which is host for the evening. It will be a stag affair and strictly informal. All members of the Association are cordially invited to be present.

The committee has decided to plan no entertainment for Thursday evening. This will enable the members of the Association to arrange for their own individual entertainment for the evening. It is expected that many of the college and class dinners and various reunions, which formerly interfered with the regular program, will be scheduled for Thursday evening.

The committee earnestly desires and requests that no private clinics be held for the attending members of the session at any time conflicting with the scientific meetings.

HOTELS

The committee has submitted the following list of hotels with rates, and urges that the members make early reservation:

Claypool Hotel, rooms without bath, $1.50 to $2 and $2.50 per day, European plan; rooms with bath, $2.50 to $3 and $3.50 per day, European plan.

Denison Hotel, $1 to $4 per day, European plan; $3 to $5 per day, American plan.

Colonial Hotel, single room, $1; double room, $1.50; single room with shower bath, $1.50; double room with shower bath, $2.50 European plan.

Hotel English, European plan without bath, $1.50 per day; with bath $2 to $2.50 per day.

Grand Hotel, European plan with bath, $2 to $2.50; without bath, $1 to $1.50.

Hotel Edwards, European, $1 to $1.50 per day without bath; $2 per day with bath.

These are the hotels which the committee recommends.

OFFICIAL CALL TO THE HOUSE OF DELEGATES

The next annual session of the Indiana State Medical Association will be held in Indianapolis, Oct. 10 and 11, 1912. The By-Laws provide that each component county society shall be entitled to send to the House of Delegates each year one delegate for every fifty members, and one for each major fraction thereof, and each society, no matter how small, shall be entitled to one delegate. According to the paid-up membership this year there are a possible 108 delegates, distributed as follows: Marion County, five; Allen, Vanderburgh, Vigo and Lake, each two; the other eighty counties, each one; the thirteen councilors and the president and secretary of the state society.

Delegates elected for the year 1912 are expected and required to attend every meeting of the House of Delegates, namely, Wednesday, October 9, 8:00 p. m., and Friday, October 11, 8:30 a. m., and such intervening meetings as business requires. If delegates are unable to meet these requirements the alternate must be sent. The rule will be strictly enforced that no member shall sit in the House of Delegates unless his credentials are in the hands of Dr. Allen Pierson, of Spencer, Chairman of the Credentials Committee, on or before the first called meeting.

CHARLES N. COMBS, Sec'y.

NOTICE TO EYE, EAR, NOSE AND THROAT SPECIALISTS

To all Members of the Indiana State Medical Association, who are interested in the Treatment of the Eye, Ear, Nose and Throat:

The forthcoming meeting of the Indiana State Medical Association will witness the first session of the new Section on the Eye, Ear, Nose and Throat.

The officers of the Section have made every effort to provide an interesting and instructive program. It is urged that all who are appointed to open the discussions of the several papers will procure from their respective essayists copies of the papers or full abstracts thereof, in order that discussions may be prepared in advance. They may be read if desired. Discussions will be limited to five minutes.

This does not mean that the discussions will be limited to those thus assigned. Therefore every member interested in the work of the Section is entitled to discuss any paper before the Section and open for discussion.

A committee headed by Dr. E. A. Willis, of Indianapolis (Hume-Mansur Building), is preparing an acquaintance dinner to be held at noon, October 10th. This will really open the work of the Section. It is urged that every member interested in the work of the Section send his name to Dr. Willis immediately in order that the committee will know for how many to provide.

Dr. T. C. Hood is chairman of another committee which will provide such clinics as can be provided.

Trusting that the wisdom which created the new Section will be justified in a large and enthusiastic attendance on its sessions, we remain,

Fraternally yours,
George F. Keiper, Chairman.
Albert E. Bulson, Jr., Sec.

ANNOUNCEMENT OF THE COMMITTEE ON SCIENTIFIC WORK

It is considered desirable to admonish essayists and discussants to be brief and to keep within their subjects; furthermore, to be prompt, to the end that the somewhat lengthy program may be completed duly. The committee also wishes herewith to call attention to the importance of communication between essayists and their discussants previous to the meeting. If possible, abstracts of papers should be submitted to the appointed discussants. The presentation of illustrative cases will add much to the value of essays.

Very respectfully,
Joseph Rilus Eastman,
A. C. Kimberlin,
Charles N. Combs.

PROGRAM OF THE ANNUAL SESSION OF THE INDIANA STATE MEDICAL ASSOCIATION

To be Held at Indianapolis, Oct. 10 and 11, 1912

GENERAL MEETINGS

Thursday Morning, 10 o'clock

Call to order by the president, Dr. W. F. Howat.

Address of welcome, the Hon. Charles Warren Fairbanks.

President's address.

Reports of committees.

The Diagnosis of "Indigestion." Dr. Jewett V. Reed, Indianapolis.

Discussants: Dr. Edwin Walker, Evansville; Dr. A. C. Kimberlin, Indianapolis; Dr. F. B. Wynn, Indianapolis; Dr. A. B. Graham, Indianapolis.

The Treatment of Pulmonary Tuberculosis with Artificial Pneumothorax. Dr. W. A. Geckler, Rockville.

Discussants: Dr. Charles P. Emerson, Indianapolis; Dr. Miles F. Porter, Fort Wayne; Dr. Charles R. Sowder, Indianapolis.

Friday Afternoon, 2 o'clock

Report of the House of Delegates.

Hydronephrosis Produced by Experimental Ureteral Obstruction. Dr. G. D. Scott, Sullivan.

Discussants: Dr. B. D. Myers, Bloomington; Dr. H. G. Hamer, Indianapolis; Dr. B. P. Weaver, Fort Wayne.

Lane's Kink and Jackson's Membrane. Dr. H. O. Pantzer, Indianapolis.

Discussants: Dr. M. R. Combs, Terre Haute; Dr. O. G. Pfaff, Indianapolis; Dr. H. K. Bonn, Indianapolis.

The Luetin Test in Syphilis. Dr. Charles G. Beall, Fort Wayne.

The Treatment of Syphilis. Dr. Wm. S. Ehrich, Evansville.

Discussants: Dr. B. W. Rhamy, Fort Wayne; Dr. R. C. Shanklin, South Bend; Dr. Bernhard Erdman, Indianapolis; Dr. F. R. Charlton, Indianapolis.

MEDICAL SECTION

Thursday Afternoon, 2 o'clock

Tuberculosis in Children. Dr. T. V. Keene, Indianapolis.

Tuberculin Treatment. Dr. Theodore Potter, Indianapolis.

Home Treatment of Tuberculosis. Dr. W. T. S. Dodds, Indianapolis.

Discussants: Dr. Angus C. McDonald, Warsaw; Dr. Frederick C. Tucker, Noblesville; Dr. Thomas Beasley, Danville; Dr. Wm. S. Tomlin, Indianapolis; Dr. W. G. Clevenger, Indianapolis.

Nervousness in Children; Its Causes and Prevention. Dr. C. F. Neu, Indianapolis.

Some Mental Affections in Internal Diseases. Dr. George E. Hoffman, Rochester.

Discussants: Dr. J. R. Yung, Terre Haute; Dr. A. E. Sterne, Indianapolis; Dr. George W. McCaskey, Ft. Wayne; Dr. F. F. Hutchins, Indianapolis.

Puerperal Eclampsia. Dr. C. E. Ferguson, Indianapolis.

Discussants: Dr. I. J. Becknell, Elkhart; Dr. August Knoefel, Linton.

Friday Morning, 9 o'clock

The Defective School Child. Dr. O. B. Nesbit, Valparaiso.

The Artificial Feeding of Children with Especial Reference to Examination of the Stool. Dr. O. N. Torian, Indianapolis.

Discussants: Dr. L. Park Drayer, Fort Wayne; Dr. W. D. Hoskins, Indianapolis; Dr. T. W. Oberlin, Hammond; Dr. James H. Taylor, Indianapolis.

The Relation of the Defective Heart Muscle to Valvular Symptoms. Dr. S. E. Earp, Indianapolis.

Discussants: Dr. Louis F. Ross, Richmond; Dr. J. A. McDonald, Indianapolis.

The Bath as a Therapeutic Agent. Dr. George F. Kahlo, French Lick.

Rheumatism and Its Kind. Dr. Lewis A. Rolling, Kramer.

Discussants: Dr. Chauncey Dowden, West Baden; Dr. C. S. Bond, Richmond; Dr. O. A. Sweet, Martinsville; Dr. Lorin Smith, Wabash.

Myelocytic Leukemia. Dr. B. G. Keeney, Shelbyville.

Discussants: Dr. A. M. Cole, Indianapolis; Dr. H. A. Thurston, Indianapolis.

Anti-Typhoid Inoculation. Dr. Wm. Shimer, Indianapolis.

Discussants: Dr. C. S. Woods, Indianapolis; Dr. A. W. Brayton, Indianapolis.

SURGICAL SECTION

Thursday Afternoon, 2 o'clock

Craniotrypesis. Dr. Simon J. Young, Valparaiso.

Discussants: Dr. J. R. Eastman, Indianapolis; Dr. Paul F. Martin, Indianapolis.

Applied Anatomy of the Shoulder Joint. Dr. John Morris, Indianapolis.

Discussants: Dr. H. R. Allen, Indianapolis; Dr. Murray Hadley, Indianapolis; Dr. Maurice Rosenthal, Fort Wayne.

Hernia in Infants. Dr. David Ross, Indianapolis.

Discussants: Dr. J. H. Ford, Indianapolis; Dr. Harry Sharp, West Baden; Dr. R. L. Woodard, Terre Haute.

Bone Infections. Dr. J. W. Sluss, Indianapolis.

Discussants: Dr. J. H. Oliver, Indianapolis; Dr. C. A. Daugherty, South Bend; Dr. H. A. Duemling, Fort Wayne.

Prostatectomy in the Aged. Dr. H. A. Moore, Indianapolis.

Discussants: Dr. W. N. Wishard, Indianapolis; Dr. W. D. Gatch, Indianapolis; Dr. C. E. Barnett, Fort Wayne; Dr. F. H. Jett, Terre Haute.

Friday Morning, 9 o'clock

Abdominal Calamities. Dr. G. G. Eckhart, Marion.

Discussants: Dr. C. H. McCully, Logansport; Dr. T. J. Toner, Gary; Dr. Goethe Link, Indianapolis.

The Question of Abdominal Drainage. Dr. Joseph H. Weinstein, Terre Haute.

Discussants: Dr. E. D. Clark, Indianapolis; Dr. A. M. Hayden, Evansville; Dr. G. B. Jackson, Indianapolis.

Some Observations on the Details of Abdominal Surgery. Dr. T. B. Eastman, Indianapolis.

Discussants: Dr. T. B. Noble, Indianapolis; Dr. George R. Andrews, Muncie; Dr. T. C. Kennedy, Indianapolis.

The Conservative Treatment of Dysmenorrhea in Girls. Dr. A. P. Roope, Columbus.

Discussants: Dr. L. F. Schmauss, Alexandria; Dr. M. Thorner, Indianapolis; Dr. Bernays Kennedy, Indianapolis.

Gonorrhea in Pregnancy. Dr. A. S. Jaeger, Indianapolis.

Discussants: Dr. Paul Barcus, Crawfordsville; Dr. M. A. Boor, Terre Haute.

Tuberculosis of the Intestines; With Case Report. Dr. M. A. Austin, Anderson.

Discussants: Walker Schell, Terre Haute; J. C. Sexton, Rushville.

EYE, EAR, NOSE AND THROAT SECTION

Thursday Afternoon, 2 o'clock

Chairman's Address. Dr. George F. Keiper, Lafayette.

The Making of a Specialist. Dr. John F. Barnhill, Indianapolis.

Discussants: Dr. Ernest DeWolfe Wales, Indianapolis; Dr. George Knapp, Vincennes.

Infectious Points in Diseases if the Nose, Throat and Ear. Dr. George W. Spohn, Elkhart.

Discussants: Dr. Walter J. Leach, New Albany; Dr. Henry B. Hill, Logansport.

Vaccines in Catarrhal Conditions. Dr. David W. Stevenson, Richmond.

Discussants: Dr. LaFayette Page, Indianapolis; Dr. Samuel C. Norris, Anderson.

The Treatment of Non-Paralytic Squint. Dr. Albert E. Bulson, Jr., Fort Wayne.

Discussants: Dr. James L. Thompson, Indianapolis; Dr. Walter A. Hager, South Bend.

Unilateral Mydriasis. Dr. Louis D. Brose, Evansville.

Discussants: Dr. Joseph O. Stillson, Indianapolis; Dr. Edgar W. Chittenden, Anderson.

Friday Morning, 9 o'clock

Some Indications for Intranasal Surgery. Dr. John J. Kyle, Indianapolis.

Discussants: Dr. Joseph D. Heitgar, Bedford; Dr. John R. Newcomb, Indianapolis.

Report of a Case of Sympathetic Ophthalmia with Recovery. Dr. Frederick C. Heath, Indianapolis.

Discussants: Dr. Henry E. Greene, Crawfordsville; Dr. John Hazelwood, New Albany.

Treatment of Trachoma, Acute and Chronic. Dr. Kent K. Wheelock, Fort Wayne.

Discussants: Dr. A. J. Knapp, Evansville; Dr. Jonathan P. Worrall, Terre Haute.

FOURTH ANNUAL CONFERENCE OF THE COUNTY SECRETARIES—PROGRAM

Wednesday, Oct. 9, 1912, 3 to 5 p. m.

PLACE OF MEETING—CLAYPOOL HOTEL

The Indiana State Medical Association As It Is and As It Ought To Be. Dr. W. F. Howat, Hammond, Ind., president Indiana State Medical Association.

How the St. Joseph County Medical Society Established a Laboratory and Library. Dr. R. C. Shanklin, South Bend, Ind., Secretary St. Joseph County Medical Society.

The Best Bait for Catching New Members. Dr. E. M. Shanklin, Hammond, Ind., Secretary Lake County Medical Society.

The Duty of the County Secretary to the A. M. A. Dr. Alex. R. Craig, Chicago, Ill., Secretary A. M. A.

Question Box. If unable to be present, mail any troublesome question or topic you want brought up for general discussion.

REPORT OF COMMITTEE ON ARRANGEMENTS

House of Delegates, Indiana State Medical Association.

Gentlemen: The Committee on Arrangements have spared no endeavor to insure the success of the coming annual session to be held in Indianapolis, October 10 and 11, and all details essential to a most enjoyable meeting have been properly arranged. We feel confident that all the members of the State Association who are fortunate enough to be with us at this meeting will derive benefit and pleasure from the visit.

While all previous sessions in Indianapolis have been held in the German House, and the accommodations were splendid for all our purposes, this year it was impossible to secure the necessary accommodations. The addition of a new section—the Eye, Ear, Nose and Throat Section—made it necessary to secure an additional assembly room whereby all sections could be cared for. Fortunately, at the Claypool Hotel, we have secured splendid accommodations which will be ideal for all of our purposes. Under one roof we will be able to hold our general meetings, our section meetings and our commercial exhibit.

The Claypool Hotel is located most conveniently at the northwest corner of Washington and Illinois streets. It is only a short walk from both the railroad and interurban stations, and all street car lines lead to it. The courtesies of the hotel are extended to all members of the Indiana State Medical Association. Refreshments of all kinds may be enjoyed at any time during the session.

ENTERTAINMENTS

The only entertainment during the session will be given at the Claypool Hotel, Wednesday evening, 8 p. m. It is to be a smoker, with refreshments and an array of entertainments. Host, Indianapolis Medical Society, Stag affair; informal. All members of the Association are cordially invited to be present. We assure you a most enjoyable evening.

It was decided to plan no entertainment for Thursday evening. This will enable the members of the Association to arrange for their own individual entertainment for the evening.

CLAYPOOL HOSPITAL

Dr. H. H. Wheeler, 708 K. of P. Building, Indianapolis, has charge of the exhibits. For exhibit space, all communications should be addressed to him.

It is earnestly desired and requested that no private clinics be held for the attending members of the meeting at any time conflicting with the scientific session.

HOTELS

The committee herewith submits list of hotels with rates, and urges that the members make early reservation:

Claypool Hotel, rooms without bath, $1.50 to $2 and $2.50 per day, European plan; rooms with bath, $2.50 to $3 and $3.50 per day, European plan.

Denison Hotel, $1 to $4 per day, European plan; $3 to $5 per day, American plan.

Colonial Hotel, single room, $1; double room, $1.50; single room with shower bath, $1.50; double room with shower bath, $2.50; European plan.

Hotel English, European plan without bath, $1.50 per day; with bath, $2 to $2.50 per day.

Grand Hotel, European plan with bath, $2 to $2.50; without bath, $1 to $1.50.

Hotel Edwards, European, $1 to $1.50 per day without bath; $2 per day with bath.

These are the hotels which the committee recommends.

A. B. GRAHAM,
C. F. NEU,
THOS. B. EASTMAN, Committee.

REPORT OF SECRETARY

House of Delegates Indiana State Medical Association.

Gentlemen: At the time of compiling this report for the annual meeting (September 1) the paid up membership for 1912 is 2,387, an increase of 50 over the membership reported this time last year. The total membership for 1911 was 2,470, of which according to the reports received at this office, fourteen have died, one expelled, nine removed, six resigned and retired, and leaving 307 suspended for non-payment of dues. New members for 1912 numbered 254. The high water mark of the Association's membership was reached in 1909 with 2,667 members. In 1910 this decreased to 2,577, and in 1911 to 2,470. However, there remains yet four months of this fiscal year, and if the county secretaries are able to collect the dues from the 300 suspended members, we will be able to establish a new mark of 2,687.

There has been neither an increase nor decrease in the number of organized counties. Geographical difficulties apparently prevent organizations in Newton County with 23 doctors, and Vermillion County with 36 doctors, while paucity of material is evidently the reason for failure in Brown County, 7 doctors; Ohio County, 6 doctors; Starke County, 9 doctors, and Pulaski County, 15 doctors. These handicaps have existed for years and their permanency would suggest that it would be better once and for all to combine each of these counties with a contiguous county, giving to such society a hyphenated title. The amicable and effective symbiosis existing in the Fountain-Warren organization can well be imitated and, if so, would remove that blot from our annual report which always states "No organization in six counties."

The attention of the county secretaries, or at least some of them, is invited to the rebuke found in the third edition of the A. M. A. Directory, which gives to the State of Indiana 4,984 reputable physicians. What is the reason that nearly 2,600 eligible physicians are not secured as members of our association?

Friction between this Society and the component county societies, disputes concerning the payment of dues, and receipt of THE JOURNAL have been minimized to a negligible fraction this year by reason of the system of uniform membership receipts. After this happy result, and the manifest approbation of the county secretaries, this scheme should be continued for the succeeding years. The secretary has adopted the plan of dating the membership cards as issued in order that the member may know exactly when his Medical Defense became operative.

CHARLES N. COMBS, Secretary.

REPORT OF TREASURER

David W. Stevenson, Treasurer, in account with the Indiana State Medical Association.

DEBIT

To cash on hand Sept. 1, 1911	$2,431.29
To cash from Secretary dues collected, 2,527 members	5,054.00
Grand Total	$7,485.29

CREDIT

By cash to the Journal	$1,895.25
By cash to the Councilors	172.85
By cash to Miss F. E. Dillon, Stenographer	100.00
By cash to Cleary & Bailey, printers	143.15
By cash to Necrology committee	5.00
By cash to F. C. Heath	39.26
By cash to C. N. Combs, Honorarium, 1911 session	300.00
	$2,655.51
To balance on hand	4,829.78
Grand Total	$7,485.29

Respectfully submitted, September 1, 1912.

DAVID W. STEVENSON,
Treasurer.

REPORT OF COMMITTEE ON MEDICAL DEFENSE

House of Delegates, Indiana State Medical Association.

Gentlemen: The Committee on Medical Defense begs to report that it has to its credit with the treasurer a sum of $1,883.25, to be used for the purpose of defending the members of this association against suits for malpractice. The amount designated represents 75 cents collected from each of the 2,511 members who have paid the current year's dues, the House of Delegates having authorized the setting aside of this sum to be used for this purpose.

Thus far there has been but one case of an action of this kind, which has been brought to our attention. This is a suit against Drs. Charles Marvel and Richard Schillinger, members of the Wayne County Medical Society against whom there has been brought a joint action for the recovery of $5,000 damages in a case of fracture of the femur, treated by them in January last.

Both of these gentlemen are members in good standing of their county society, having complied with all the rules governing the responsibility of the State Association in such cases and the case has been favorably passed upon by a local committee, consisting of the president, secretary and one other member, as provided for in our by-laws. After receiving the recommendation of this Committee, your chairman paid a personal visit to Richmond to investigate the case and to appoint legal counsel to defend the members against whom the suit has been brought.

From the information received we feel justified in expressing the opinion that the treatment in the case in no way reflects unfavorably upon the physicians in charge. The patient was cared for in the Reid Memorial Hospital, according to approved methods in such conditions and this fact is verified by other physicians who saw the case, as well as by nurses and doctors of the hospital staff.

We feel, therefore, that the action is without justification and endorse the attitude of the defendants in

not wishing to compromise the case, believing that should it ultimately come to trial a verdict will be rendered in their behalf.

A tangible proof of the practicable value of the defense plan is afforded in this case and should be an an inducement to increase membership in the State Association. It also shows the importance of prompt payment of dues in order that members may have the advantage of this feature.

A report of the final disposition of this case will be made at our next meeting.

Respectfully submitted.

Geo. D. Kahlo, Chairman.
Albert E. Sterne,
A. C. Kimberlin.

REPORT OF COMMITTEE ON MEDICAL EDUCATION

House of Delegates Indiana State Medical Association.

Gentlemen: We are heartily in accord with the work that has been carried on by the American Medical Association. Those who are familiar with the report at the last session of that association know that great progress has been made, but that there is still need of continuous and persistent efforts on the part of the National and State Associations to further a higher standard. Better premedical work is a sign of progress but it is susceptible of improvement. It is very encouraging that such subjects as therapeutics, economics and eugenics are receiving marked attention by many of the medical schools. In the recent past there has been deficient practical education in obstetrics together with lax requirements and laws relating to this branch of general practice. There has been some improvement but there is room for more.

The information given by the association council shows that education has made a rapid advancement. We find that within a few years the colleges have been reduced from 166 to 120, the reduction being brought about chiefly by the closing of inferior schools and by mergers, so that the colleges which remain present a much higher average of excellence. The council's list shows how decidedly entrance standards have been raised, sessions have been lengthened, better teachers have been employed, new buildings have been erected, better endowments have been secured, new laboratories have been provided, better equipment has been furnished, closer relation with hospitals and larger and better clinical privileges secured for medical students. A good medical education costs the school far more to give than the students can pay.

Concerning the status of medical education in Indiana, we recognize that the profession and citizens of the state are to be congratulated. There is but one medical school in the state and it is under state control, therefore insuring adequate equipment and competent instruction. Emphasis has been placed upon bedside instruction and the four hospitals afford ample facilities. The new St. Vincents Hospital has recently been erected at a cost of $800,000. The estimated cost of the new City Hospital is $2,000,000, it will take several years to complete it. This year two units will be built there being at this time $330,000 in available funds, $225,000 of this was a donation by Alfred Burdsal and $105,000 a special appropriation. An annex to the Methodist Hospital was recently completed at an expenditure of $160,000. The gift of the Robert W. Long Hospital will not only insure increased clinical advantages for the medical school but provide opportunity for sick poor everywhere in the commonwealth, to receive the best of medical and surgical care.

The State Board of Medical Examination and Registration has furthered the cause of medical education by requiring two years of collegiate work preparatory to entrance upon a medical course.

The present administration of the Indiana University School of Medicine is to be commended for its stand taken looking to (a) higher moral standards among the medical students as well as among practitioners, and (b) because of the employment of salaried men who are well trained and devote their entire time to teaching and investigation. Clinical men should also be salaried so that they may give up general practice except public hospital work, thus removing them from the criticism of rival practitioners. The profession should coordinate with the Indiana University School of Medicine and by so doing further the cause of medical education under control of the state, which holds up the principles of economy as well as furnishing greater usefulness to the people.

The State Board of Health is a public service and is markedly efficient under the direction of the secretary, Dr. J. N. Hurty. It should be the function of every great medical school to train students to become sanitarians just as they train them clinically to become practitioners. The State Department of Health could offer such facilities. Every town of consequence is beginning to demand trained public health officers. The University and Health Board should cooperate to supply the public demand.

It is well to mention that the sociological relationships of medical practice are being taught by Dean Charles Emerson in a commendable manner.

The State Board of Charities and the many great correctional and benevolent institutions, have achieved a national distinction. They are pointed to as models in construction and management. Their successful conduct depends in the main upon efficient and conscientious medical direction. It is therefore incumbent upon the University as well as upon the Department of Charities to coordinate their work to the end that trained medical men may be turned out not only to man the great institutions of the State but municipal hospitals, alms houses and similar institu ion .

Respectfully submitted.

Samuel E. Earp, Chairman, Indianapolis.
H. H. Thompson, Noblesville.
G. F. Holland, Bloomington.
M. A. Austin, Anderson.
B. Van Sweringen, Fort Wayne.

REPORT OF COUNCILORS

House of Delegates Indiana State Medical Association.

Gentlemen: I herewith submit a tabulated report from the councilors for the year 1911. You are respectfully urged to give the reports careful attention, as they show in condensed form what has been done by the councilors for the various districts in the state.

Respectfully submitted,

Chas. N. Combs, Secretary.

District	Society Dues	Physicians in County	Members of County Society, 1911	Eligible Non-Members	Number of Meetings	Average Attendance	Scientific Papers	Case Reports	Attendance at District Society	Visits by Councillor
First District										
Pike	$2.00	30	11	15	8	8	10	..	..	..
Gibson	2.50	51	33	..	10	11	15	11	..	..
Posey	2.25	32	18	..	1	6	4	1	0	..
Vanderburg	3.00	112	89	15	20	18	20	100	..	..
Warrick	2.50	36	18	..	12	7	8	36	0	..
Spencer	2.50	35	22	14	10	7	..	..	..	..
Perry	2.00	22	10	8	5	5	2	1	0	..
Total	....	318	201	52	..	..	..	..	..	..
Second District —										
Sullivan	$3.00	51	19	21	12	14	15	3	4	1
Knox	3.00	60	44	8	9	15	15	10	..	1
Daviess	2.00	38	24	16	7	10	10	2	3	1
Martin	2.50	15	12	1	4	8	7	12	..	1
Monroe	2.50	36	21	13	3	6	2	3	3	0
Owen	2.50	21	17	4	6	..	..	..	..	1
Greene	3.00	45	30	5	12	14	24	5	4	12
Total	....	266	167	68	..	..	..	..	..	..
Third District —										
Clark	$2.25	..	..	..	..	..	..	..	..	..
Crawford	2.00	..	..	..	..	..	..	..	..	..
Dubois	3.00	..	..	..	..	..	..	..	..	..
Lawrence	3.00	..	..	..	..	..	..	..	..	..
Orange	2.25	..	..	..	..	..	..	..	..	..
Floyd	3.00	..	..	..	..	..	..	..	..	..
Harrison	2.50	..	..	..	..	..	..	..	..	..
Scott	2.00	..	..	..	..	..	..	..	..	..
Washington	2.00	..	..	..	..	..	..	..	..	..
Fourth District—										
Decatur	$3.25	45	17	15	30	8	..	..	..	..
Bartholomew	2.50	46	27	..	10	8	9	4	6	..
Jackson	3.00	50	28	..	9	9	3	..	8	..
Jennings	3.00	21	20	1	7	6	3	7	7	..
Jefferson	2.50	31	18	..	12	6	11	40	8	..
Ripley	3.00	32	17	11	10	8	15	10	9	..
Dearborn	3.25	32	25	4	12	8	..	..	15	..
Switzerland	2.00	14	11	3	2	5	0	0	4	..
Total	....	271	163	34	..	..	..	..	..	..
Fifth District										
Vigo	$5.00	130	95	15	36	26	60	32	12	..
Parke	2.50	36	19	17	8	10	12	4	10	..
Clay	3.00	40	26	10	8	7	6	24	..	..
Putnam	2.25	36	21	14	4	15	4	8	..	..
Total	....	242	161	56	..	..	..	..	..	..
Sixth District—										
Hancock	$3.00	34	24	10	7	6	10	14	..	1
Henry	3.00	60	31	..	..	..	..	..	..	..
Fayette	2.50	20	15	2	12	6	..	..	3	1
Franklin	2.50	22	3	..	..	..	..	..	..	..
Rush	....	35	24	11	2	10	0	0	..	..
Union	2.00	10	7	3	6	5	..	..	..	..
Shelby	2.00	46	23	12	0	0	0	0	..	1
Wayne	3.00	84	53	..	12	25	45	..	..	1
Total	....	311	180	38	..	..	..	..	..	..
Seventh District—										
Hendricks	2.00	42	25	10	6	12	8	6	10	..
Johnson	2.50	43	16	24	12	8	12	5	10	..
Marion	5.00	662	294	..	35	57	30	48	..	..
Morgan	2.00	36	13	23	3	6	2	1	1	..
Total	....	783	348	57	..	..	..	..	..	..
Eighth District—										
Blackford	$2.00	28	15	7	..	..	..	..	..	..
Delaware	2.50	97	51	13	9	14	8	4	..	..
Jay	3.00	38	24	10	12	10	10	4	..	..
Madison	3.00	120	47	..	10	17	24	26	..	..
Randolph	3.00	40	23	10	10	11	16	40	10	..
Total	....	323	160	40	..	..	..	..	..	..
Ninth District—										
Fonntain-Warren	$2.00	58	24	27	4	12	9	5	3	1
Tippecanoe	3.00	76	49	20	18	13	20	23	..	0
Montgomery	2.50	78	27	21	12	12	10	2	3	1
Clinton	3.10	58	22	25	1	..	..	..	4	..
Boone	3.00	37	16	16	12	6	8	6	7	12
Hamilton	2.60	54	25	21	9	9	5	10	..	1
Howard	3.00	39	24	5	12	16	10	3	..	1
Tipton	2.50	25	14	9	2	10	2	0	12	0
Total	....	428	201	144	..	..	..	..	..	..

District	Society Dues	Physicians in County	Members of County Society, 1911	Eligible Non-Members	Number of Meetings	Average Attendance	Scientific Papers	Case Reports	Attendance at District Society	Visits by Councilor
Tenth District—										
Lake	$3.00	106	61	40	11	20	20	25	40	1
Porter	2.00	29	14	13	8	7	6	2	2	..
Jasper	3.00	12	7	3	..	7	4	2	0	..
LaPorte	4.00	49	43	5	11	15	26	6	4	9
Total	....	196	125	61	..	..	..	..	..	..
Eleventh District—										
White	$2.00	28	13	6	2	3	..	..	..	0
Carroll	3.00	36	32	3	10	10	20	..	..	..
Cass	3.00	59	43	9	37	18	67	41	10	..
Miami	3.00	55	26	10	8	10	16	5	..	1
Wabash	2.00	43	18	..	6	10	18	8	..	..
Grant	4.00	93	41	15	13	20	18	30	18	13
Huntington	2.00	50	36	10	16	14	25	3	10	..
Total	....	364	209	43	..	..	..	..	..	..
Twelfth District—										
LaGrange	$2.00	20	7	10	6	8	3	3	..	2
Noble	2.00	34	34	..	3	20	14	3	..	3
Whitley	3.00	26	16	7	8	11	12	5	..	3
Wells	4.00	30	24	3	17	10	17	19	7	2
Adams	2.25	27	17	4	12	8	10	21	5	2
Allen	5.00	135	96	8	40	17	34	45	20	20
DeKalb	2.50	40	23	12	8	12	16	24	..	1
Steuben	2.50	30	17	8	6	10	..	..	..	3
Total	....	342	234	52	..	..	..	..	..	..
Thirteenth District—										
St. Joseph	$6.00	125	52	60	35	17	27	52	15	25
Pulaski	2.00	18	2	16	1	7	6	4	2	0
Fulton	2.00	22	14	8	12	12	..	..	4	..
Marshall	3.00	34	15	10	9	..	..	..	..	2
Elkhart	5.00	77	63	7	..	30	..	..	32	..
Kosciusko	4.00	43	29	5	11	12	17	16	13	2
Total	....	319	175	106	..	..	..	..	..	..

REPORT OF COMMITTEE ON STATE MEDICINE

House of Delegates Indiana State Medical Association.

Gentlemen: Your committee on State Medicine beg leave to offer the following. Owing to the fact that the residences of the different members of the committee were so far removed from one another, the committee has been unable to meet in regular session and its work has been done by correspondence.

With the union of all medical colleges, and the resultant control of medical education by the state, the state organization has been brought into closer relation and sympathy with medical instruction. It would seem that this is an opportune time for the profession represented by its state organization to take official cognizance of certain conditions.

There appears, unfortunately, to be a growing tendency for the recent graduate in medicine, to avoid the study and labor incident to a period of general practice in order to launch out at once into some specialty where the work is less arduous and the remuneration greater. The days of the good old family doctor appear to be numbered and the day of commercialized specialism is here. We are confronted by the spectacle of graduates of a few weeks' experience, or indeed no experience at all, boldly undertaking lines of operative procedure belonging only to those of the greatest skill and experience. It has almost come to a point where the unfortunate public is viewed as so many guinea-pigs or white rabbits placed by Providence at the disposal of aspiring young specialists to aid in the development of a surgical technic. While this is admittedly wrong, the remedy is not easy to suggest. Any attempt to arouse the moral sense of such offenders is useless; those possessing a proper regard for the health and lives of their fellow beings need no restraint but will always act in conformity with their knowledge and experience while keeping the limitation of both constantly in view. It is to curb those destitute of these qualities that the profession must turn its attention.

It is to be feared that some of this must be laid at the door of our medical schools, which of late have shown a marked tendency to depart from their legitimate field of furnishing thorough instruction in general medicine and surgery and, if their catalogues are to be believed, have become a mere aggregation of specialists. No wonder the student trained under such conditions leaves college with the feeling that he is a full fledged specialist in any department that he may choose.

The fault is not with the medical schools alone but back of these stand the boards of registration. Until the latter designate officially just how much of each specialty must be taught in an undergraduate medical school to conform to their ideas of what constitutes a proper general medical education, every college in self defence, not knowing how much knowledge of any specialty may be demanded by the examiner, must continue to attempt to cover the whole range of each specialty to the exclusion of general medicine or surgery. It is clearly within the province of this society to confer with the State Board of Registration to ascertain whether some satisfactory arrangements may not be secured. It is to be hoped that the time will come when one desiring to practice any specialty will be required to furnish the state through its proper board evidence of possession of adequate knowledge to engage in such lines of special practice.

The question of the training of nurses is of vital importance to both the public and the profession. An examination of the curriculum of the average training school for nurses and the questions asked by boards of registration show that too much stress is placed upon

the symptoms and treatment of disease (with which the nurse should have nothing to do), and too little upon those things pertaining to nursing proper. The result of this is that sometimes the nurse with a quiz compend knowledge of medicine becomes an absolute menace to the welfare of the patient. This could be materially changed for the better if those members of the profession having control of hospitals supporting a training school for nurses, or those lecturing in such training schools, would insist upon instruction suitable for nurses and not, as at present, a mere smattering of medicine and nursing.

The question of the increase of malpractice suits should be a matter of grave concern. While it is customary to ascribe the majority of such actions to the ambulance-chasing lawyer, yet the profession and this association are not wholly without fault. We may well question whether our association in its endeavor to add to its numbers has not committed a grave error in not more closely scrutinizing the general as well as the professional character of applicants for membership. Our association is placed in the anomalous position of organizing officially for the defense of such of its members as may be attacked, but at the same time not providing proper penalties for those who either instigate or promote such suits. This matter should be dealt with firmly. Any member of this society who testifies against another in an action of this kind should be placed at once upon the defensive and should answer to his local society for his action. A rule might be passed requiring any member solicited to testify for the plaintiff in an action for malpractice, to report the same to the Judicial Council or Board of Censors of his local society, who thereupon should make a complete investigation of the entire matter and if it is found that the action is unjust, should not only take the proper measures for defense, but call the attention of the entire society to the matter. If then any member should testify for the plaintiff this act should be construed to be a withdrawal from the society and such member's name forthwith dropped from the roll of membership. It is time that our profession following the lead of all other organizations should take proper steps to secure just legislative enactments. In these actions brought against us we should be entitled to demand that an expert examination of the person of the plaintiff be made under the direction of the court such as obtains in all actions for personal injury brought against corporations or individuals and the law of privileged communications should be abolished so that any physician who may have treated the case might be competent to testify. If the proper laws are not now upon the statute book then such should be drafted by a competent attorney by order of the society and proper provision made for its introduction and care in the next General Assembly.

A number of additions to our health laws are worthy of careful consideration. The inspection of public school children which has proven so useful in many of the cities and larger towns might with profit be extended to embrace all the schools of the state. Compulsory vaccination of all children at the age of one year followed by a re-vaccination at the time of entering school, similar to the German practice would render unnecessary all quarantine laws directed against smallpox. The presentation of a certificate of good health as a prerequisite to the issue of a marriage license, the reporting of venereal diseases, the compulsory prophylactic treatment of the eyes of new-born children by physicians and midwives together with a report of the same in the birth report and the more stringent enforcement of the laws governing the heating and ventilation of school houses, factories and all places of entertainment or amusement are among the things which might be agitated with profit by our society.

Respectfully submitted,
FRANK A. MORRISON, Chairman.
J. N. HURTY, Indianapolis,
W. F. CARVER, Albion,
M. A. BOOR, Terre Haute,
G. A. SCHULTZ, Lebanon,
O. W. MCQUOWN, Marion,
G. T. MCCOY, Columbus.

REPORT OF COMMITTEE ON TUBERCULOSIS

House of Delegates Indiana State Medical Association.

Gentlemen: We, your Committee on Tuberculosis, beg leave to submit the following report, as we view the situation in Indiana. We present for your consideration the fact of a noticeable decrease in the death rate from tuberculosis in Indiana, and the fact that said decrease was greater in 1911, than in any year since 1904. This decrease we believe is the result of the campaign of education on this one disease, and of the increased interest and effort on the part of the profession of Indiana, to study tuberculosis scientifically. The intelligent cooperation of the people of the state, with the profession, in the study of tuberculosis, has been an important factor in securing these results. This increased interest is the result of the various factors that have been directed toward the education of the public and the profession, viz.: The Indiana Association for the Study and Prevention of Tuberculosis, the state branch of the National Association, promises to be a great factor in the education toward the study and prevention of tuberculosis.

The state association is now engaged in organizing in every county of Indiana and has the regularly employed organizer devoting his time to this work. We ask the profession of Indiana to cooperate with the organizers in the various counties of the state.

Tuberculosis is a disease of the masses and a house disease, and is more prevalent in the insanitary, overcrowded residence districts.

We would again urge upon the profession of Indiana the need of cooperation, and would especially call your attention to the necessity for the united profession of Indiana using their influence with their legislators toward the passage of an adequate sanitary housing law during the session of our next legislature.

We would again call your attention to the work of our State Institution for the Treatment of Tuberculosis at Rockville, Indiana. The law creating this institution specifically restricted its use to the indigent consumptives. We feel it our imperative duty to urge the profession to recognize the importance of sending only the incipient indigent cases for treatment at this institution. It is believed that many of the beds at this institution have been occupied by those who could have cared for themselves, this probably because the profession have been derelict in their duty.

It was the hope and expectation of the profession when this institution was established, that it would contribute in an emphatic way to the modern scientific tuberculosis movement, and fulfil an important educational function throughout the state. It may perhaps

be in order for the profession of Indiana to inquire as to whether these expectations have been and are being fulfilled.

Students of the tuberculosis question throughout the world are unanimous in declaring for the necessity of a more general report and registration of all cases of tuberculosis.

We would therefore repeat our former recommendation for such a registration law.

The council of Pharmacy and Chemistry of the A. M. A. have been doing great work in exposing nostrums and frauds in general. We would call your particular attention to the pitiful and shameful use of such agents in the treatment of tuberculosis. We would urge physicians to keep themselves informed regarding these exposures and to use this knowledge at every opportunity, in order to protect their patients against such frauds.

More and more is investigation revealing the frequency of the infection of tuberculosis in childhood. In every instance, therefore, in which tuberculosis exists in a household, having children or young people, especial efforts and precautions should be made against infection. Parental affection and family interest will frequently aid the physician in his efforts to control this disease.

The medical inspection of school children where used has met with the hearty cooperation of the school authorities and parents. We would urge the more general practice of inspection of school children to aid in the prevention of tuberculosis. Tuberculin is coming into more and more use in treatment, both by special students of tuberculosis and by the general profession. There is, in this popularity, a danger through failure to understand what it is and the principles upon which tuberculin therapy is based. Tuberculin is a toxin, is in no sense directly curative, but as an antigen tends to stimulate the body to produce its own antibodies. It is not at all comparable to an antitoxin. It should be used, especially by the inexperienced, only in safely selected cases, the dose to be very small at the start and increased with great caution. With these intelligent safeguards, and always as an aid to the hygienic treatment, it may properly be used by any physician. Without them it is very likely to disappoint both physician and patient, and the treatment to be brought into disrepute.

Every patient should be made to understand that tuberculin is only at best an adjunct to his other treatment, and that little is to be expected from it except when given for a considerable time, for several months at least. A special duty devolves upon the profession just now to see that tuberculin treatment does not, by misuse, become discredited.

Respectfully submitted,
Frederick A. Tucker, Chairman.
Theodore Potter,
Thos. J. Beasley,
James Y. Welborn,
A. C. McDonald.

REPORT OF COMMITTEE ON POSTGRADUATE AND RESEARCH WORK

House of Delegates, Indiana State Medical Association.

Gentlemen: Since in past years this subject has never been referred to a special committee we have no precedent to follow and would, therefore, deal with the subject in rather general terms.

The real medical education begins when the student receives his diploma. The four years of medical school work have given him a foundation for future study and taught him methods of work, but with his first patients he sees the need of postgraduate study. Some, and especially those who are unfortunate enough to be very busy at once after graduation, grow medically old early, and years later we find them merely more proficient in the use of the ideas they gained while at medical school and losing ground professionally. Others, by following current medical literature and attending medical meetings, are able to keep abreast of the medical progress. A third group of men in addition to this visits the various medical schools, while a fourth interests itself in problems of research work.

We feel this is all necessary. Even though there were no medical progress it still would be the duty of the practitioner to illuminate his own experience by comparing it with that of others and to obtain from them suggestions which will increase his own proficiency as an observer. To accomplish this Dr. Schell recommends that in the large county societies there be co-operative subscriptions to the best journals; that these journals be kept on file in the public library bound and indexed if possible, so as to aid any one in seeking wider reading in current literature of medicine. One or two meetings in the year of all county societies might be given to the discussion of the advance made in medicine as shown in the recent publication of journals and books. He also advises that one or more meetings of all societies be devoted to reports of the work of the great research institutes of which the Rockefeller Institute in this country is a type and that one or more copies of the Journals of Experimental Medicine be taken by each county society. Dr. Schell cites as illustrations of the value of these laboratories to the practitioner the practical advances made in practice by research work in such diseases as meningitis, infantile paralysis, syphilis, malaria, Carrel's work in experimental surgery, etc.

But in addition to this, short visits to medical centers assist one even more to grow in that knowledge and skill which is, and also to appropriate that which is to be. "Courses" are by no means necessary. The man with receptive mind can, during a visit of a few days or at the most of six weeks in a wide-awake university clinic, pick up valuable new suggestions and ideas, and, what is even more important, can in a very few hours even gain an enthusiasm, an inspiration which will transform him to a different man.

It should also be remembered that no two patients are just alike; every new patient is to the physician a problem of original research, and will be treated poorly if treated according to any routine. The research worker is often regarded by the "practical man" as one striving for reputation by the publication of work which lies entirely outside the practical physician's sphere of activity. Quite the contrary. "Research is not a mystical occupation carried on only in great and expensive laboratories by men who desire to make a name for themselves. It is rather a habit of mind, a method of getting at things, a particular angle from which problems are viewed. For this reason the private practitioner can be as real a research worker as a member of a great university if he has the necessary

mental habit of always looking at his cases as problems to be solved and attacks these problems in the proper spirit" (J. P. Simonds). We await with confidence the time when training in research will be a required part of the medical course.

Some physicians attend definite courses both in this country and abroad, while others prefer to follow for a few days or weeks the regular work of the undergraduate medical schools. We feel that the latter is the preferable course, for what the practicing physician wants are the new ideas, the inspiration, the enlarged horizon; the drill he can give himself at home. Courses especially arranged for postgraduate medical students (and we speak as those who have taught these courses) are apt to be unsatisfactory to both doctors and the teachers. They are apt to be more "practical" than instructive and stimulating, and often cause the most surprising metamorphoses. The general practitioner suddenly becomes a specialist, confident of the sufficiency of his new ability gained in almost six weeks, and awakens later to an appreciation of the thinness and brittleness of his new professional veneer. The doctors willing to attend a few of the regular clinics and lectures of our university medical schools usually leave in a very different frame of mind, inspired by a vision of better things to which they hope to attain. It is for this reason that our best schools guard the "special courses" with great care or omit them entirely. Undoubtedly the best method to follow if one desires a special training is to register as special pupil with one whose work he admires, work on some definite problem given him, and also assist in the routine of that clinic. From four to six months is the shortest time which can be spent profitably, but the result should be worth while, and even this is not enough to justify a radical change of practice.

As much as possible of the postgraduate work should be done in America and Great Britain because of the imperfect mastery of foreign languages by most English-speaking physicians, unless they can spend several months abroad, a time long enough to learn the language well and then to use it to advantage. Most of our great American doctors have received a part, at least, of their training in European clinics.

The American Medical Association of Berlin and Vienna has done much to improve the courses offered by those universities to American students and protects them from bad courses which do not give adequate return for money and time.

We would suggest asking the legislature to enlarge the appropriation to our state laboratory of the Board of Health that it may aid us in research work. "We found its sympathetic aid of great value to us in Terre Haute in a dysenteric epidemic of a peculiar type and it was of vast assistance to us in stopping this epidemic" (Dr. Schell). We would suggest that our state so equip its laboratories that increasing use may be made of them by men engaged in the actual practice of medicine and surgery and that surgeons have free access to the anatomical laboratory to rehearse operations that are rare and difficult.

We advise physicians everywhere in the state to make increasing use of these laboratories supported by public money and to assist in enlarging the scope of their work and in creating a public sentiment in favor of their better equipment. We also ask liberal and generous support for our state university to the end that it may equal the best schools in this or in any other country.

In this connection please let us say that the Indiana University School of Medicine desires to measure up to your highest standards, and hopes soon to be a center which you all will be glad to visit for work. It is a state institution; it does not belong to any local faculty. We desire that each member of the state society take a personal interest in it, not merely because he may think it his duty, but because he finds it to his advantage, to do so. If in the future its professional, ethical or moral standards fall short of your ideals, we welcome your honest criticism; it is your State University Medical School.

Of course, there are great advantages in visiting schools located at a considerable distance from home for this gives one a wider medical horizon. This we all should do. But one makes few such visits during his lifetime, while he should visit the home school frequently if for only a few days. In addition to this we intend that this school shall become of such excellence that it may be a medical center which the physicians of even distant states may find it of advantage to visit.

That the state society shall interest itself to stimulate an interest in postgraduate and research work on the part of each of its members is the earnest recommendation of this committee.

C. P. EMERSON, Chairman,
WALTER SCHELL,
G. M. MCCASKEY,
J. A. MACDONALD,
J. P. SIMONDS.

REPORT OF COMMITTEE ON INEBRIETY

House of Delegates, Indiana State Medical Association.

Gentlemen: Since it has been demonstrated that inebriety is one of the greatest curses of the human race, producing physical, mental and moral destruction not only in those who indulge but also in their descendants; and since the government, disregarding this, continues to license the sale of its citizenship to destruction for revenue; and since this condition cannot be changed until the moral sentiment of the citizenship has been changed, it is hereby recommended by your committee through its chairman: (1) That the profession spread the propaganda that alcoholics of every kind are deleterious to the human organism, and that the profession inculcate the idea into the minds of the laity, thus fulfilling one of its most important functions—that of *teachers* of man in this most important matter; (2) Since the state is in a measure responsible for the individual and social destruction flowing from inebriety, it is the duty of the state to minimize as far as possible those evils flowing from excessive drink.

It is therefore recommended by your committee as a means to this end that industrial adjuncts be established by the state at every asylum for the poor, to which inebriates upon arrest may be sentenced, instead of being sentenced to a common jail; and that in these inebriate retreats, the victims shall receive proper treatment and care until able to perform manual labor, after which time they shall be compelled to work out their sentence and be paid full wages which shall go to their families in case of married men, and to the men themselves at the end of their sentence in the case of single men. Funds to support these institutions shall be drawn from any license fees paid into the state for the sale of alcoholic liquors.

It is hereby respectfully submitted to this society that the present methods of punishment of inebriates,

and the whole plan of dealing with inebriety are an absolute failure in every way. They do not reform the inebriate nor punish him. They confine him in idleness and condemn him to greater comfort than he has at home. The punishment falls wholly on his innocent family, deprived of the support of their bread-winner, and who are left in utter destitution many times. Where fines are paid and jail sentence is thus avoided, the innocent family in the last analysis pays the largest part of the bill. Therefore some plan whereby the punishment shall fall on the guilty individual; the inebriate put to work, and the proceeds of his labor go to his dependent family, is the only sensible way to deal with this evil.

It is therefore recommended that this society give this matter serious consideration as a social question of grave importance; and if this plan is found good, that this society, composed as it is of men best fitted by education and experience to understand the subject, urge upon the proper authorities the incorporation of this plan into the laws of the State of Indiana.

Very respectfully,

W. J. Fernald, Chairman,
G. W. Spohn,
W. R. Moffitt,
H. M. Lamberson,
Edgar Cox.

REPORT OF COMMITTEE ON VENEREAL DISEASES

House of Delegates Indiana State Medical Association.

Gentlemen: Your Committee on Venereal Diseases after consultation in various quarters, decided not to render a report that should be simply a literary rehash of the entire sociological aspect of prostitution and venereal diseases. This has been done times without number. These voluminous studies conducted by master authors are to be consulted in every library. What can we then do practically as a committee or as an association, that may be productive of results?

We start from one sound premise. Sexual indulgence has always played a major part in the relationships of men and women. None but a dreamer or an ignoramus believes that it will ever be otherwise. This is a proposition independent of marriage. Marriage is a convention that works for righteousness and cleanliness and control; but marriage does not, never has and never will adequately settle these problems. Sexual indulgence, proper and indiscriminate, legitimate and illegitimate, in reason and in excess, will go on.

Granting this, can there be any sane approach to the question other than by way of gaining control and oversight? We believe not. To close houses of prostitution by rigid police power and consider the problem as settled is a striking parallel to the ostrich that buries its head in the sand and believes itself safe from its pursuers.

We believe that such a course as stamping out prostitution will lead to greater ills. We believe that control even under license with extensive police and medical powers, would be pragmatically right (choosing the lesser evil and gaining the larger good).

Under such police and medical supervision, Salvarsan might be compulsorily administered to all syphilitics. Other venereal diseases might in some corresponding measures be prevented. Such controlled prostitution would in a measure guard the chastity of the girls of every household, humble and great. It would make it easier for the struggling working girl to maintain her chastity by partially relieving her from the besiegements of men bent on sexual indulgence. Aside from sentiment or emotion or "fine words" we believe this.

Where then can we as an association do something better than discuss theoretically problems of sex and sexual diseases?

In Indianapolis there is a crusade to stamp out prostitution. We believe that the "stamping out" crusade has always been a failure. Its partisans are earnest people bent on doing good. We believe their effort is a misguided one. Frank municipal recognition and control we believe to be better. Let us manage it as we do many other unpleasant, unideal situations in the community, by administering regulations wisely and firmly. It is the common problem of every city.

This is the practical note of our report. Let us go on public record as favoring municipal regulation, even if it carry us to the point of licensing. With this should go rigid impartial police, non-political, and health oversight.

Respectfully submitted,

F. R. Charlton, Chairman, Indianapolis.
A. M. Hayden, Evansville.
F. H. Jett, Terre Haute.
E. S. Imel, Petersburg.
F. A. Van Sandt, Bloomfield.

DEPORT OF COMMITTEE ON PUBLIC POLICY AND LEGISLATION

House of Delegates, Indiana State Medical Association.

Gentlemen: Your Committee on Public Policy and Legislation begs to report that in the absence of any legislative session during the past year it has been without opportunity to take any official action.

Largely through the efforts of our predecessors on this Committee, many excellent laws have been included in the Indiana statutes looking to the safeguarding of the public welfare in matters in which our profession have an especial interest.

The State Board of Medical Examination and Registration is deserving of much credit for their untiring effort to elevate the standard of requirements for admission to medical schools and licensure. This has been recognized by the establishments of reciprocal relations with other state boards, whose policy has been actuated by like ideals.

We wish also to commend the work of the Indiana State Board of Health in the enforcement of laws looking to the protection of the public against infection and particularly in its endeavors to educate the public mind in matters pertaining to general and personal hygiene. Much has been accomplished also in the Department of Pure Food and Drugs in the protection of the public against spurious and adulterated products. The facilities offered to the members of our profession in the way of pathological and bacteriological investigations have been of inestimable value to many physicians.

It would be much in the public interest, as well as in justice to honest and conscientious medical practitioners if there could be some legislative enactment which would prevent unscrupulous charlatans from putting forth fraudulent claims to professional recognition in the form of glaring advertisements in the daily press. Such practices are quite as reprehensible and inimical to the public good as is the selling of adulterated foods and drugs, which fortunately has been largely controlled. We offer this as a suggestion to the House of Delegates in the hope that some action may be taken authorizing our successors or some other com-

mittee especially appointed for this purpose to prepare a bill having for its object the abolishment of this evil.

Respectfully submitted,

Geo. D. Kahlo,
J. B. Berteling,
D. C. Peyton,
W. F. Howat, Ex-officio,
C. N. Combs, Ex-officio,

REPORT OF COMMITTEE ON PATHOLOGY

House of Delegates Indiana State Medical Association.

Gentlemen: We, the Committee on Pathology of the Indiana State Medical Association, beg leave to submit the following report:

In view of the interest displayed by those visiting the Indiana State Medical Association meeting at Indianapolis last year, we have decided to continue along the line then instituted, presenting to the members a condensed exhibit during the meeting in September, and endeavoring to interest them by a display of specimens of gross material, as well as demonstrations of laboratory technic. If the work of the Committee of Pathology is to be of value to the State Association, we would respectfully recommend:

First: That an appropriation be made to cover the expense of caring for specimens and preparing the exhibit for the following year, 1913.

Second: In order to be progressive in our relation to this most important subject in medical science we would suggest the advisability of the creation by the State Association of a fellowship for research work in pathology at the Indiana University School of Medicine at Indianapolis.

The Committee feels that its value to the State Association during the past few years has been purely nominal and that in order to justify its existence, it should be enabled by financial support to make itself felt as a creative force in medicine.

Respectfully submitted,

Henry R. Alburger, Chairman.

REPORT OF COMMITTEE ON COMPULSORY VENTILATION

House of Delegates Indiana State Medical Association.

Gentlemen: Your Committee on Compulsory Ventilation begs leave to report that the laws relating to the subject are inadequate, and that certain recommendations should be made to city councils and to the legislature which will encourage the enactment of new laws and ordinances relating to the matter.

Building codes, housing laws, factory inspection laws and in general, all laws which regulate in any way whatsoever the construction of factories, school buildings, dwelling houses, apartment houses and hotels should specify not only the means of ventilation but also the degree of ventilation in so far as it is possible to do so. It is not enough that the laws regulating bakeries and other food producing establishments should say that such places must be well ventilated. The law should state what ventilating facilities, either natural or artificial, will be necessary in a building of certain dimensions, etc.

In this report it is impossible to state specifically what provisions should be made in state ordinances and state laws. We would recommend, however, that health officers in cities and towns should consider the question of ventilation with building and factory inspectors and use their influence to have written in the ordinances and laws, definite rules for the ventilation of buildings of every kind.

And we would further recommend that the members of the Indiana State Medical Association and other organizations should use their influence to secure the passage of building laws which provide for adequate ventilation.

We would further recommend that all theaters, churches and buildings used for similar purposes, which cannot be well ventilated naturally, should be required to have adequate artificial ventilating facilities.

We would further recommend that public conveyances and common carriers should be thoroughly ventilated according to certain rules adopted by Boards of Health, and ordinances passed by common councils.

Yours very truly,

C. S. Woods, Indianapolis, Chairman.
C. D. Humes, Indianapolis.
E. L. Wiggins, Elwood.

REPORT OF COMMITTEE ON CREDENTIALS

House of Delegates, Indiana State Medical Association.

Gentlemen: The Committee on Credentials recognizing the importance of having the credentials of all delegates in the hands of the secretary as early as possible and as nearly uniform as possible, has sent blanks on which to make such credentials, to all the secretaries of the county societies in the state, with a request that they be filled and returned as soon as delegates were appointed. Of the eighty-six secretaries so addressed, forty-three or one-half have returned the credentials properly made out.

At the last Ft. Wayne meeting it was thought advisable in some cases to allow credentials to be presented at the time of the meeting, and at the meeting the following year it was suggested that delegates should be selected as late as possible before the annual meeting of the state association, in order that those most likely to attend might be selected. For these reasons a full list of delegates will not be made before the time of the meeting, regardless of the desirability of having such list completed before.

Allen Pierson, Chairman.
Geo. D. Miller, Logansport.
E. G. Blinks, Logansport.

REPORT OF COMMITTEE ON NECROLOGY

House of Delegates Indiana State Medical Association.

Gentlemen: Eighty-two physicians of Indiana have died since the last meeting of our State Medical Association. The majority of them were members of the Association; I am unable in many instances to decide as to membership. I sincerely wish that county secretaries would send me a notice of every death in their membership. A newspaper clipping will be sufficient.

A number of physicians' wives and widows were reported—of course these were not included in the count of eighty-two names. One tragic death was recorded, that of Dr. Helene E. H. Knabe, who was found dead in her apartments in Indianapolis, on the morning of Oct. 24, 1911. After the lapse of nearly one year, it is not definitely determined whether she was murdered or committed suicide.

May I make one more appeal? Honor the memories of your dead members by sending obituary notices to the chairman of the Committee on Necrology.

G. W. H. Kemper, Chairman.

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EDITORIALS

OUR PRESIDENT

The President of the Indiana State Medical Association, William Frederick Howat, was born at Bedeque, Prince Edward Island, Canada, June 2, 1869. He was educated in the public schools and Prince of Wales College of his native province. He graduated from the Medical Department of the University of Pennsylvania in 1892, and in the same year located in Indiana. He practiced for about three years in Packerton, Ind., and in October, 1895, moved to Hammond, Ind., where he has resided and practiced medicine since that time.

He served as a member of the Board of School Trustees for six years, and was one of the organizers of the Public Library of Hammond, serving as a member of the Library Board ever since its organization in 1903.

In 1898 he assisted in the organization of the Lake County Medical Society and served as president of that body for eight consecutive years.

In addition to being a member of his County and State Medical Societies, he is a member of the American Medical Association, the Chicago Medical Society, Northern Tri-State Medical Association, American Association for the Arvancement of Science, The National Association for the Study and Prevention of Tuberculosis, The American Anthropological Society, The American Academy of Political and Social Science, The National Geographic Society, The Royal Society for the Encouragement of Arts, Manufactures and Commerce, the Fifteenth International Congress of Hygiene and Demography, and the American Sociological Society.

Dr. Howat has been a faithful attendant at the annual sessions of the Indiana State Medical Association, and he was one of the leaders in the organization movement which has done so much for the betterment of the profession of the state. During the year he has visited a large number of the county and district medical societies of Indiana where he has used his influence in building up progressive and harmonious medical organizations. He is an able and forceful speaker as well as a successful practitioner, and is an honor to the Association of which he is president.

THE RECOMMENDATIONS OF THE ASSOCIATION'S OFFICERS AND COMMITTEES

In this number of The Journal will be found the reports of officers and committees of the Indiana State Medical Association. They are interesting and deserve careful attention at the hands of the members of the Association.

According to the report of the Committee on Necrology, we find that eighty-two physicians of Indiana have died since our last session, but, according to the secretary's report, only fourteen were members of the Association. The paid-up membership shows an increase of fifty over the membership recorded this time last year. This really does not show the real increase of new members, inasmuch as there are 307 physicians who as yet have not paid their dues for the year 1912, but the majority of whom will probably do so at or before the Indianapolis session. The total number of new members is 254.

Secretary Combs calls the attention of the county secretaries to the rebuke found in the third edition of the A. M. A. Directory, which gives to the state of Indiana 4,984 reputable physicians, and he asks, "what is the reason that nearly 2,600 eligible physicians are not secured as members of our Association."

A very interesting feature is the tabulated report of the councilors, and we especially urge every member of the Association to inspect this report carefully with a view to determining just how active his councilor is in organization matters. In this report will be found a record of every county medical society, including the amount of the dues paid, number of physicians in the county, members of county medical society during 1911, eligible non-members, number of meetings held during the year, average attendance at meetings, number of scientific papers presented, number of case reports presented, the record of attendance at the district society meeting, and the number of visits made by the councilor of the district. Under this last item it will be noted that few districts show up well, and it certainly is up to the county societies not visited by the councilor to find out why the councilor has been negligent or why he has not sent in a report. Of all of the councilors, Dr. Van Sweringen, of the Twelfth District, leads the list in his visits to county societies of his district, his visits to societies other than his own being more than the com-

bined visits of all of the other councilors to county societies in their districts. The Third District presents absolutely no report of any kind whatsoever, and the Secretary announces that he has been unable to obtain any report from that district.

In the matter of dues, considerable difference exists. In many of the counties the dues are simply enough to cover the dues to the State Association. In the counties having the larger societies the dues are larger, with the exception of Vanderburg, where the dues are but $3. In Vigo, Marion, Allen and Elkhart, the dues are $5, and in St. Joseph County the dues are $6. In passing it may be well to remark that more difficulty is encountered in obtaining the Association dues from the counties having dues of but $2 than from counties where the dues are $5 and $6.

The report of the Treasurer shows a very substantial balance in the treasury, but it should be remembered that a goodly portion of this balance must be set aside for the use of the Committee on Medical Defense. There will, however, be a balance after all accounts have been paid, and we hope that a wise administration of the finances will enable us to maintain an increasing balance during succeeding years.

It was hoped that the Committee on Medical Defense would report that since the first of the year no demands had been made on the committee for medical defense; but just before going to press the committee was informed that suit had been entered against two members of the Wayne County Medical Society for recovery of $5,000 damages in a case of fracture of the femur treated by them in January last. The committee very promptly investigated the case and found that the two physicians were entitled to defense by the Association, and at once counsel was employed to defend them. The Committee feels justified in expressing the opinion that the treatment of the case in no way reflects unfavorably on the physicians in charge, and it is fully expected that a verdict will be rendered in behalf of the defendants.

The report of the Committee on Venereal Diseases will probably strike a note of discord among certain members of the Association, inasmuch as the recommendation is made that the Association should go on record as favoring municipal regulation of prostitution, even if it carry us to the point of licensing. The Committee says that with this should go rigid and impartial police, nonpolitical, and health oversight. In reaching this conclusion the Committee says: "We start from one sound premise. Sexual indulgence has always played a major part in the relationships of men and women. None but a dreamer or an ignoramus believes that it will ever be otherwise. This is a proposition independent of marriage. Marriage is a convention that works for righteousness and cleanliness and control; but marriage does not, never has and never will adequately settle these problems. Sexual indulgence, proper and indiscriminate, legitimate and illegitimate, in reason and in excess, will go on. Granting this, can there be any sane approach to the question other than by way of gaining control and oversight? We believe not. To close houses of prostitution by rigid police power and consider the problem as settled is a striking parallel to the ostrich that buries its head in the sand and believes itself safe from its pursuers." The committee believes that we should choose the lesser evil and control prostitution rather than attempt to stamp it out, with the certainty that such act would lead to greater ills.

The report of the Committee on State Medicine sounds a note of warning concerning the all too frequent tendency on the part of medical men to launch out into specialism without adequate preparation. The Committee says: "We are confronted by the spectacle of graduates of a few weeks' experience, or indeed no experience at all, boldly undertaking lines of operative procedure belonging only to those of the greatest skill and experience." And, further, "While this is admittedly wrong, the remedy is not easy to suggest. Any attempt to arouse the moral sense of such offenders is useless." It is charged that some of the fault may be laid at the door of our medical schools which show a marked tendency to depart from their legitimate field of furnishing thorough instruction in general medicine and surgery, and, if their catalogs are to be believed, have become a mere aggregation of specialists. As is properly pointed out, the fault is not with the medical schools alone, but back of these stand the boards of medical registration. The hope is expressed that the time will come when one desiring to practice any specialty will be required to furnish the state, through its proper board, evidence of the possession of adequate knowledge to engage in such lines of special practice.

The Committee on State Medicine also justly condemns the present method of training nurses and says, "An examination of the curriculum of the average training school for nurses and the questions asked by boards of registration show that too much stress is placed on the symptoms and treatment of disease (with which the nurse should have nothing to do) and too little on those

things pertaining to nursing proper. The result of this is that sometimes the nurse with a quiz compend knowledge of medicine becomes an absolute menace to the welfare of the patient. This could be materially changed for the better if those members of the profession having control of hospitals supporting a training school for nurses, or those lecturing in such training schools, would insist on instruction suitable for nurses and not, as at present, a mere smattering of medicine and nursing."

Concerning the matter of malpractice suits, the same committee takes a forceful stand when it says that "any member of this Association who testifies against another in a malpractice action should be placed at once on the defensive and should answer at once to his local society for his action."

The Committee says that the compulsory vaccination of all children at the age of one year, followed by a re-vaccination at the time of entering school, similar to the German practice, would render unnecessary all quarantine laws directed against small-pox, and the Committee further says: "The presentation of a certificate of good health as a prerequisite to the issue of a marriage license, the reporting of venereal diseases, the compulsory prophylactic treatment of the eyes of new-born children by physicians and midwives, together with a report of the same in the birth report, and the more stringent enforcement of the laws governing the heating and ventilation of school houses, factories and all places of entertainment or amusement are among the things which might be agitated with profit by our Association."

The Committee on Medical Education endorses the work carried on by the American Medical Association in the interests of higher standards and general advancement in the demands for better premedical work. The citizens of Indiana are congratulated on having but one medical school under the control of the state. therefore insuring adequate equipment and competent instruction. Attention is called to the new facilities for bedside instruction which are afforded by the new St. Vincent's Hospital recently erected at a cost of $800,000, and the new City Hospital, the estimated cost of which is $2,000,000, and which will be completed within a few years by sections or units. This year two units are being built at an expense of nearly $350,000. The gift of the Robert W. Long Hospital will not only insure increased clinical advantages for the medical school, but provide opportunity for sick poor everywhere in the commonwealth to receive the best of medical and surgical care. The present administration of the Indiana University School of Medicine is commended for its stand looking to higher moral standards among the medical students as well as among practitioners, and the employment of salaried men who are well trained and devote their entire time to teaching and investigation.

The Committee on Pathology says that if the work of the Committee is to be of value to the Association, it will be necessary that an appropriation be made to cover the expense of caring for specimens and prepare for the exhibit of year 1913. The Committee also recommends the creation by the Association of a fellowship for research work in pathology at the Indiana University School of Medicine at Indianapolis.

The Committee on Tuberculosis reports that there has been a noticeable decrease in the death-rate from tuberculosis in Indiana, and it is believed that this decrease is the result of the campaign of public education and the interest and effort on the part of the profession of Indiana to study tuberculosis scientifically. The Committee calls attention to the state institution for the treatment of tuberculosis at Rockville, Ind., and says that the law creating the institution specifically restricts its use to indigent consumptives. The Committee feels it their imperative duty to urge the profession to recognize the importance of sending only the indigent incipient cases to this institution. It is believed that many of the beds at this institution have been occupied by those who could have cared for themselves. It is also questioned if the institution has contributed in an emphatic way to the modern scientific tuberculosis movement. The Committee recommends a registration law requiring the report and registration of all cases of tuberculosis. The general practice of medical inspection of school children to aid in the prevention of tuberculosis is heartily commended.

The Committee on Postgraduate and Research Work have some very good recommendations to offer. It is recommended that in all of the large county societies there be cooperative subscriptions to the best journals, that these journals be kept on file at the public library, bound and indexed if possible, so as to aid any one in seeking wider reading in current literature of medicine. It is suggested that one or more meetings in the year of all county societies might be given to the discussion of the advance made in medicine. County societies are also recommended to subscribe for *The Journal of Experimental Medicine*. It is suggested that the state should equip its laboratories so that increasing use may be made of them by men engaged in the actual prac-

tice of medicine and surgery, and that surgeons have free access to the anatomic laboratory to rehearse operations that are rare and difficult. The Committee further recommends that the medical profession of the state take a vital interest in building up the medical department of the state university so that it will rank with many other institutions in the advantages offered for postgraduate work.

The Committee on Public Policy and Legislation commends the work of the Indiana State Board of Health and the enforcement of laws looking to the protection of the public against infection, and particularly in its endeavors to educate the public mind in matters pertaining to general and personal hygiene. Much has been accomplished also in the department of pure food and drugs in the protection of the public against spurious and adulterated products. The recommendation is made that some legislative enactment should prevent unscrupulous charlatans from putting forth fraudulent claims to professional recommendation in the form of glaring advertisements in the daily press.

A sensible recommendation comes from the Committee on Inebriety that the state shall establish industrial adjuncts at every asylum for the poor to which inebriates on arrest may be sentenced instead of being sentenced to a common jail, and that in these inebriate retreats the victims shall receive proper treatment and care until able to perform manual labor, after which time they shall be compelled to work out their sentence and be paid full wages which shall go to their families in case of married men and to the men themselves at the end of their sentences in the case of single men. It is suggested that funds to support these institutions shall be drawn from any license fees paid into the state from the sale of alcoholic liquors.

The new Committee on Compulsory Ventilation has some general recommendations, the essence of which is that state laws should state what ventilating facilities, either natural or artificial, will be necessary in a building of certain dimensions. The recommendation is further made that all public buildings such as schools, churches and theaters should have artificial ventilating facilities, providing such building cannot be well ventilated naturally.

The committee reports on the whole indicate a healthy appreciation of what is necessary from a physician's standpoint for the best interests of the public and the further progress of scientific medicine. They also indicate that those members of the Association who have been appointed on the various committees have given the subjects under discussion some careful thought and consideration. It is hoped that a majority, if not all, of the recommendations that have been made will be found useful and can be carried out. If the reports are duly approved by the Association, it only remains for the members as individuals to work in the interests of the recommendations in order to accomplish the desired results.

ETIOLOGIC FACTORS IN SUMMER DIARRHEAS OF CHILDREN

In the present era of bacteriology it is perhaps the most natural thing in the world to attempt to ascribe to most epidemic diseases a bacterial origin. So in the consideration of the summer diarrheas of infants there has long been a disposition to regard infection as perhaps the strongest etiologic factor. Yet there can be no gainsaying the fact that heat in and of itself, or perhaps heat plus humidity, forms one of the most potent factors in the development of these gastrointestinal disturbances of early childhood and infancy. Relative to the parts played by the various etiologic factors, and particularly that of bacterial infection, Holt[1] has the following to say:

"Though it is clear that excessive contamination is highly detrimental to infants, we must certainly look to the other factors for the explanation of a very large, possibly the largest, proportion of the cases. Of the other factors, atmospheric heat is clearly first in importance. This may act by so interfering with normal digestion and metabolism as to lead to the formation within the body of injurious substances which excite diarrhea; or it may favor the excessive growth of bacteria ordinarily present in the digestive tract. In this group of cases the rôle of the bacteria seems to be secondary though perhaps a very important one. According to this hypothesis, the cause of the diarrheas under consideration is not something introduced from without, but something produced within the body itself." Again, in discussing the etiologic factors in acute intestinal indigestion and intoxication, he goes on to say: "The exciting cause of an attack may be the use of improper food, overfeeding, or some sudden change in food as in weaning; but the food remaining unchanged, it is often other influences affecting the child, such as summer heat. The most striking thing about these cases is their prevalence during hot weather." Each successive year shows the same prevalence of epidemics in the large cities beginning in June, rapidly increasing in severity, reaching their height usually in July, then steadily diminishing until they regu-

1. Diseases of Infancy and Childhood. 1911.

larly come to an end in September. In all the severity of the epidemics bears a fairly close relation to the height of the summer temperature.

Bearing on this same factor of the relation of the mortality and morbidity curves to the temperature and humidity curves, Royster has presented some interesting data[2] in his paper read before the Section on Diseases of Children at the Atlantic City meeting of this year. Prefacing his statistics, he does not hesitate to discount the theories of milk decomposition and bacterial infection as the main factors in summer diarrheas of infants, and it is because of his convictions on this subject that he was induced to undertake his studies concerning the influence of heat and the possible combination with humidity.

Taking up the question purely in relation to climatic conditions, as heat and humidity, leaving out of consideration all other factors, this investigator concludes briefly as follows: That infant diarrhea, as it is commonly understood, exists practically entirely in the temperate regions, is exceedingly rare in Canada and similar countries, and equally rare in the tropics and subtropics.

Liefmann and Lindemann, observing for fifteen years the temperature, sick and death curves in the city of Berlin, find that the two latter follow an almost exactly parallel line with the 2 p. m. temperature curve. It has long been known that in the poorer sections of larger cities, mortality is higher among children deprived of outdoor air, and that country children are notably less affected than city children despite a not infrequent higher country temperature; also that children sent to the country suffering with such diarrheas frequently recover much more rapidly than those forced to dwell in the city. The same and indeed a more forceful picture is afforded by the results at seaside resorts and floating hospitals.

Frequent bathing in cold water during the hot days and small draughts of water frequently administered to the child are known to be potent factors in the prevention of summer diarrhea. Inasmuch as best results in recovery and rapid recuperation of these little sufferers are obtained at the seashore or in the floating hospitals, it would seem reasonable to conclude that the question of breeze and hence radiation of heat becomes a most important factor. Indeed, it is most logical to conclude that the greater the velocity of the atmospheric current, the more rapid the evaporation and radiation of body heat. For just these reasons it would seem that a most economic way of producing such effects at home would be in the use of the ordinary electric fan trained over the bed of such a sick infant during the periods of highest temperature and greatest humidity.

Bearing on the direct relation of heat and humidity to the death-rate, Royster undertook a study of the comparative curves in a number of the larger cities of the countries. Such a statistical study is of course wrought with many difficulties and seeming inconsistencies, and yet in a general way his results seem to show, as graphically represented in the tracings accompanying his article, that morbidity and mortality curves from summer diarrheas in infants quite faithfully follow in their variations those of the temperature and humidity curves. Sometimes the rise in the mortality curve will be slightly delayed beyond the causative rise in the temperature curve, or possibly two such temperature rises will precede a definite rise in the mortality curve. In such latter instance it is fair to presume that the child may have weathered the effect of the first rise and hence no such variation in the mortality curve results as would have been shown were accurate mortality curves available.

From what has been said above, it seems fair to conclude that decidedly potent etiologic factors other than actual bacterial infection must needs be considered in seeking the etiology of summer diarrheas in infants. At the same time there should be no attempt to belittle the importance of avoiding to the greatest possible extent bacterial contamination of the food supply. And yet we must admit that with the conditions surrounding the food supply remaining constant, probably the most potent factors in the production of these diseases are excessive heat and humidity.

2. Am. Jour. Dis. of Child., September, 1912.

THE EFFECTS OF SLEEP AND REST ON BLOOD-PRESSURE

On *a priori* grounds it might be assumed that rest and sleep would invariably be conducive to a lowering of the blood-pressure, and as a matter of fact it has been repeatedly demonstrated on both man and the lower animals that there is a marked fall in pressure during sleep. Tarchanoff observed a fall in the aortic pressure of from 20 to 50 mm. in young dogs during the early stages of sleep, and Howell noted a similar fall in the blood-pressure of man. Leonard Hill, however, did not concede this drop to be any greater during sleep than that occurring as a result of simple rest in the prone position. This was denied by Brush and Fayerweather, who declared that the fall was concurrent with sleep and was much

greater than the drop which sometimes takes place simply from rest or the prone position. Howell demonstrated the maximum fall to occur between one and two hours after sleep, the period corresponding to the time of greatest auditory insensibility, as demonstrated by Kohlschutter, Czerny and others.

In the *Archives of Internal Medicine* for August, Brooks and Carroll have reported the results of an interesting clinical study of the effects of sleep and rest on blood-pressure. Their investigations, conducted on carefully selected cases, demonstrated in each individual a more or less constant variation in the blood-pressure, depending apparently more on the time of observation than on other factors. For instance, night pressures taken in groups of night sleepers were almost invariably lower than the day pressures in the same individuals, but in night workers and day sleepers the finding was reversed. In so far as practical, neurotic individuals and others with personal peculiarities likely to confuse the main points of the study were excluded and the series restricted to more or less phlegmatic individuals who would show less hourly variations or fewer psychic stimuli. They divide their series into three classes: 1, those in which the systolic pressure lay within the usual range, viz.: 110 to below 170 mm. Hg.; 2, those in which the pressure was less than usual, below 110 mm., and 3, those in which the pressure was above 170 mm. In order to rule out widely discordant results from strictly arbitrary classification, excessive alterations in pressure were not included.

In each series, a basis of comparison was reached by taking the pressure between 4 and 5 p. m., since it was demonstrated that the relation of the time of day to rhythmic sleep is an important factor in blood-pressure estimations. Sixty-eight patients with medium pressures were studied and gave an average basic afternoon pressure of 142.5 mm. Systolic readings taken between one and two hours after primary night sleep showed an average drop of 124 mm. Hg. Three hours after the morning wakening the average pressure showed a depression of 12 mm., which gradually lessened until the mean afternoon level was again reached, viz.: between 4 and 5 o'clock.

Thirty low-pressure cases showed an average systolic pressure of 100 mm. The average drop determined within from one to two hours after primary sleep was 16.5 mm., while morning reading gave an average depression of 6.66 mm., with a slow return to the general average of evening pressure.

It is interesting to note that in the twenty-nine cases of high pressure whose systolic reading averaged 204.5 mm., the one- to two-hour drop averaged 44.8 mm., and the morning pressure drop 22.8 mm. So that the least drop in pressure occurred in the initial low-pressure cases and the greatest fall in the highest systolic cases. This was further emphasized in a study of isolated examples of very high and very low pressures. It seems most natural to conceive of this fall as a definite conservation on the part of Nature. These and other studies would seem to denote that the preliminary drop after sleep is a very rapid one, and that the rise beginning during sleep soon after the point of minimum pressure gradually extends through the remainder of the sleep period, continuing slowly to rise until the maximum afternoon pressure is reached. Such is the course when patients are confined to bed. But allowed to go about the ward there ensues a slight rapid rise of a few mm. on getting up, followed by the slow upward curve. It would thus seem to be demonstrated that not only most normal individuals, but also many super and subnormal ones have a more or less regular blood-pressure curve, but to this rule many exceptions exist, notably in cases markedly influenced by psychic factors or where circulatory decompensation actually present or threatened exists.

Although Gumprecht observed a fall in pressure of laboring men with reading between 160 and 200 after primary rest in bed in the hospital, yet Hensen found more usually higher readings in such patients on the first day of their hospital residence. The experience of the latter more clearly tallies with that of the authors in that they did not find that physical rest *per se* materially alters either super or normal blood-pressure, although it exerts a profound elevating influence on the low pressures of exhaustion. This is contrary to their observations concerning mental or psychic rest, in which they experienced undoubted benefit from rest in cases of high pressure. From this somewhat limited number of observations conducted on high-, medium- and low-pressure cases, it would seem that the pressure fall after sleep is much more pronounced after the customary regular or rhythmic sleep, either night or day, while the drop occurring as a result of sleep taken at irregular intervals is usually slighter in degree and less abrupt in appearance although after profound physical exhaustion the pressure drop occurring with sleep is more rapid. A study of sixty cases leads to the conclusion that the drop is in some way directly connected with sleep since in patients not allowed to sleep the pronounced fall does not occur although a certain drop results,

probably from the rest of the prone position. Again, if sleep is disturbed, as by disagreeable dreams, noise or pain, even though complete unconsciousness be attained, the drop is not so pronounced. The authors believe this to be a likely explanation for the comparative exhaustion clinically observed in patients after a night of disturbed, although unconscious, sleep. This fact was emphasized by one night's observations when the sleep in the general ward had been disturbed by the presence of a delirious patient. Records made of previously studied patients, who, despite the annoyance, had become unconscious, showed a drop, but not to the usual degree. While disturbments during the first sleep delays, but does not necessarily prevent, the maximum pressure fall, yet frequent interruptions do prevent it, and when the maximum drop has taken place before the patient wakes, it does not recur that night no matter how sound the subsequent sleep may be. Whether or not the drop is occasioned by sleep or occurs as a rhythmic phenomenon independent of but concurrent with sleep is a matter of speculation, but the authors do not believe it to be in any way concerned in the causation of sleep since the fall appears subsequent to rather than preliminary to or concurrent with sound sleep. Then, too, some of their instances showed sound refreshing sleep at the usual time and apparently normal occurring without the drop, and yet they feel convinced that the drop is a physiologic necessity, and that its degree is in a general way determined by the rest and release from tension required by the individual.

The amount of night urinary secretion seemed to be uninfluenced by the degree of pressure drop in the cases studied. Attempts to apply clinically these observations to ascertain whether or not prolonged sleep caused a proportionate lowering of pressure were without therapeutic result. Even a temporarily lower twenty-four-hour pressure was not obtained by prolonging or deepening the sleep, and little difference existed in the twenty-four-hour pressure whether the patient was confined to bed or allowed to be up and about. In an effort to artificially increase the sleep drop in concrete cases of high pressure as much as 120 grains of potassium bromid was administered without increasing the degree or persistence of the fall. The same result followed the administration of 50 grains of chloral hydrate every night.

From these and other clinical observations, the authors conclude that as yet the sleep drop cannot be utilized therapeutically to lower the blood-pressure, and that although its effect in high pressure cases is more marked than that of any drug in medicinal doses, it is of little therapeutic utility, and they add parenthetically that the more profound their study of blood-pressure the more convinced they become that the oftentimes frantic efforts at lowering high blood-pressure are perhaps as harmful, if successful, as they are usually futile.

NOTICE TO COUNCILORS

There will be a meeting of the Council of the Indiana State Medical Association at the office of the President, Dr. W. N. Wishard, Hume-Mansur Building, 23 E. Ohio Street, at 5 o'clock, p. m., Wednesday, October 9. A full attendance is requested.

Charles N. Combs, Secretary.

EDITORIAL NOTES

The tabulated report of the work of the councilors, printed in this issue of The Journal, should be read by every member of the Indiana State Medical Association. It shows what the councilors have done, and in several places indicates what should have been done.

For the 1913 session of the Indiana State Medical Association we hope that the Committee on Scientific Work will insist on having comprehensive abstracts of all papers for the session so that the same may be published in The Journal in connection with the official program. It ought to be possible for all essayists to have these abstracts prepared at least a month before the session at which the papers are to be read.

And now we have a book on "The Dangers of Osteopathic Treatment," presented by an osteopathic practitioner. The circulars announcing this book say that "it proves conclusively that only regular doctors should be allowed to give osteopathic or other manipulative treatments, as they are the only safe judges as to when such treatments are indicated." The book may be of educational value to the public, but it probably contains little not known by the regular medical profession.

Professor Matruchot, of the chair of botany at Sorborne, and Dr. Lannois, of the Paris School of Medicine, have corroborated Dr. Gaston Odin's statement that they have verified his discovery of the cancer microbe and of a vaccine

which they believe will prevent the disease and even cure not too far advanced cases of it. The Paris medical world has heard so many similar announcements, however, in which subsequently it has been disappointed, that it declines to become enthusiastic until Dr. Odin definitely proves his claim.

An excellent scientific program has been prepared for the Indianapolis session of the Association. There will be three sections, the Medical, Surgical and the Eye, Ear, Nose and Throat sections. Each section has an abundance of good papers, and ample time should be devoted to the discussion which really is the most valuable feature of our meetings. Those who are down for discussion are earnestly urged to be one hand, and to procure in advance abstracts of the papers they are to discuss. These abstracts may be obtained by writing the essayists.

According to precedent, this number of The Journal contains all of the committee reports, announcements and the program of the Indianapolis session. Members of the Association and members of the House of Delegates in particular, are asked to read carefully the committee reports, inasmuch as the reports will not be read before the House of Delegates, but will be acted on as called, the publication of the reports in The Journal being entirely with a view to doing away with the necessity of reading the reports before the House of Delegates.

The daily papers announce that an Indianapolis man has sued a dentist of that city because the dentist made him a set of false teeth that prevented him from spitting. We are inclined to agree with the editor of the *Fort Wayne Daily News*, who says that the dentist should receive praise rather than censure, and that authorities of cities and towns would do well to employ such a dentist with a view to having him equip with his non-spittable teeth all the loafers who daily roost in public places and defile floors and sidewalks by their filthy spitting.

The Committee on Scientific Work publishes in this issue of The Journal an announcement which should be carefully read by all those who are to take part in the scientific program for the Indianapolis session of the Indiana State Medical Association. Essayists and discussants are asked to be brief and to confine their remarks to their subjects. They are also asked to be prompt, which really means to be on hand when the paper is called. Those who are appointed to open the discussion of papers will find it an advantage to have an abstract of the paper before going to Indianapolis so that due preparation may be made.

The editor of *The Journal of the Iowa State Medical Society* reproduces one of our editorial notes on nostrum advertising and cordially approves the sentiment. He then says: "Apropos to this, the plain-spoken editor of the *California State Journal* says some plain things about the appearance of Mayo, Ochsner, Crile, Carstens, Ingalls, Binnie and others, in the pages of the January number of the *American Journal of Surgery*, which carries from fifteen to twenty pages of Glyco-Thymoline and Pepto-Mangan type of advertising. It appears that this enterprising journal saw the advantage of having this list of famous names appear as a group in a single issue. These gentlemen are shrewd and watchful men, and we cannot but admire the skill of the editor of the *American Journal of Surgery* in catching them."

Dr. Henry W. Niswonger, of Fort Wayne, who was convicted of selling cocain to the dope fiends, and thereafter deprived of his physician's license by the State Board of Medical Examination and Registration, is now submitting evidence which he thinks will entitle him to a new trial. The most absurd claim made is that the cocain was prescribed as treatment. The Court would do well to secure the evidence of any reputable physician, the testimony of whom would be that cocain has absolutely no place in therapeutics. Its legitimate use is in producing local anesthesia in connection with surgical operations or for the application of such medicaments as might produce discomfort or pain. It is not a therapeutic agent having the slightest virtue, and should never be prescribed as such.

That instruction in the art of avoiding street accidents is a necessary part of the education of the children of New York City is the conclusion reached by investigators who have been examining the causes of the many fatal accidents and serious injuries that occur there daily. There are nearly 30,000 such accidents a month—at least that has been the record of the past few months—and it is pointed out that a number of persons equal to the population of a good-sized town are killed every year by being struck by automobiles, street cars and horses, or in other avoidable ways. The majority of the victims are children and it is proposed, therefore, to give all the youngsters of school age systematic instruction as to how to

protect themselves from injury on the city's thoroughfares. This training will include instructions as to crossing the streets in accordance with traffic rules, what to do when a motor car or a runaway horse is rapidly bearing down on a pedestrian, and various other points important in the preservation of life and limb. The work of instruction is to begin within the next few days under the supervision of representatives of the board of education and of various philanthropic organizations. As a result it is hoped to bring about a decided reduction in New York's appalling death list from street accidents.

The Board of Health of the city of Fort Wayne has decided that under certain conditions typhoid vaccine will be given away to prevent family epidemics. In cases of typhoid in the home of a poor family in which the chances for a spread among other members of the household is imminent, and in which the head of the family cannot pay for the vaccine, it will be given them at the expense of the municipality. The State Board of Health makes it obligatory on municipalities to furnish diphtheria antitoxin when the patients are unable to pay for the treatment, but makes it optional with the board in cases of typhoid fever. The decision of the Fort Wayne City Board of Health is in the line of progress and is commendable from every point of view.

The Committee on Entertainment for the Indianapolis session of the Association is to be commended for its decision to let the members of the Association seek their own entertainment on Thursday evening. We have always felt that one evening should be left to the members for their use in such manner as individual preferences may decide. The renewing of friendships through quiet dinners or visits, and the theater for those who may care for such amusement, are preferable to any formal entertainment for the entire Association which may be provided by the Committee on Arrangements. The smoker on the first evening, with the Indianapolis Medical Society as host, will be a splendid opportunity for getting together, and the second evening will be the only time when each member of the Association will be privileged to select his own entertainment.

The Secretary of the Association in his annual report asks the question as to why 2,600 eligible physicians in Indiana are not members of our Association. The Committee on State Medicine, referring to the question of malpractice suits, says: "We may well question whether our Association in its endeavor to add to its members has not committed a grave error in not more closely scrutinizing the general as well as the professional character of applicants for membership. Our Association is placed in the anomalous position of organizing officially for the defense of such of its members as may be attacked, but at the same time not providing proper penalties for those who either instigate or promote such suits." The Committee maintains that while it is customary to ascribe the majority of malpractice actions to the ambulance chasing physician, yet the general profession and some of the members of our Association are not wholly without fault.

The Indianapolis program is a good one, but it is overcrowded. It is a mistake to have so many papers that all cannot be thoroughly discussed. We believe that the Association should have a by-law fixing a limit to the number of papers accepted for any one session. Not more than five papers can be properly discussed within the time set for any one meeting, and the scientific committee should make it a point to select papers with due regard to subjects, and geographical location of essayists, the latter being with a view to giving various portions of the state representation. Any essayist who without good and sufficient excuse fails to present his paper when given a place on the program should be debarred from appearance on the program of the Association for a period of three years. This is a rule which is followed by some of the sections of the American Medical Association and it has worked very satisfactorily.

Several quack institutions have been established in Indiana for the treatment of the sick and suffering at a minimum charge of from 50 cents to $1 per month for each person treated, and sometimes the institutions have been sufficiently liberal to furnish whole families with medical services at a uniform rate of $1 per month. Some of the various benevolent or fraternal orders have offered this alluring bait, and a few misguided and perhaps financially unsuccessful physicians have been willing to become the medical attendants for these orders. As a rule these propositions come to grief sooner or later, and there are now pending within the state several suits for damages in consequence of malpractice on the part of physicians who have been acting in behalf of such lodges or associations. The question arises as to whether the lodges or

associations will help defend their physicians. It is entirely possible that reputable medical men will offer cold comfort to these erring brothers.

W. C. WHITE (*American Practitioner and News*) believes that every tonsil that shows in the fauces after a child is 6 years of age should be removed. He says: "When one considers this gland that has ceased functioning in a region so richly supplied with blood and lymph; in a region where all of our food passes, and in a cavity which in health has the proverbial fifty-seven varieties of microorganisms according to Mueller; this gland that is a natural incubator, being supplied with the requisite amount of heat and moisture, and which, if taken between the fingers and squeezed, will exude a cheesy, foul-smelling material—this same material when injected into a guinea-pig will develop tuberculosis in fourteen out of twenty-one injections, and the remaining seven go through a severe septic condition and possibly die—that when this occurs from a tonsil that is apparently normal, it makes one suspicious of the entire tonsil tribe."

THE daily newspapers announce that the former home of Hon. Charles W. Fairbanks, of Indianapolis, is to be sold to the notorious Dr. D. M. Bye, the quack cancer doctor, who a few years ago received such an unmerciful scoring at the hands of Samuel Hopkins Adams in *The Great American Fraud.* The dupes have contributed to quite a respectable fortune for Dr. Bye, and the purchase price of the Fairbanks homestead is said to be close to $100,000. Dr. Bye says that after he obtains possession of the property he will make arrangements for a camp meeting for the Apostolic Faith to be held on the large lawn surrounding the house. The Apostolic Faith organization, Dr. Bye says, was commonly known as the "Gliggy Bluks." This religion, he says, is of great merit and much misunderstood. He says he is a member of the religious organization, and will arrange for a camp meeting to be held on his lawn. He says tents will be erected on the lawn, and that some of the best preachers in the country have been engaged.

No doubt the religion of the "Gliggy Bluks" takes into consideration the blunting of the conscience of Dr. Bye in his well-known habit of defrauding the sick and suffering. On the other hand, it is quite possible that Dr. Bye, like many other quacks and charlatans, uses the cloak of religion, like some use the fraternal lodges, for pecuniary gain.

WE have received many favorable comments concerning the "Physicians' Directory" published in the advertising department of every number of THE JOURNAL. While this directory is a source of income without which THE JOURNAL would not be able to continue in its present size, yet aside from all this it is a means of acquainting the profession of the state with the prominent physicians who are specialists in certain fields of medicine, and in this it renders a real service. The physicians who are represented in the Physicians' Directory are all reputable men, and those of them residing in Indiana are members in good standing in the Indiana State Medical Association.

To be entirely ethical and in the best taste a professional card should contain the bare announcement that the physician limits his practice to a certain specialty, or it should merely give the name, leaving the supposition that the physician is prepared to do all general work. It is quite proper to give the address, office hours, and even the telephone numbers if so desired.

We are pleased with the fact that THE JOURNAL is able to carry such a large number of professional cards from our most prominent physicians, and we hope that in the future it will be patronized by still more of the membership of the Association.

THAT the amendment to the pure food law which Congress has just passed, designed to wipe out patent-medicine fakes, will not accomplish its purpose is the charge made by Dr. Harvey W. Wiley, former head of the bureau of chemistry and pure food expert. Dr. Wiley contends that the amendment contains a joker which practically nullifies its intended effect.

This is no more than was to be expected, for the patent-medicine manufacturers virtually control a sufficient number of senators and representatives to prevent any very radical legal restrictions inimical to their business, and it was quite certain that a loop-hole would be found for getting around restrictions that would prove damaging to their interests. Dr. Wiley says that the sad part of the whole business is that the committee had before it a perfectly just amendment, drawn in the interest of the public, and presented by Judge Richardson of Alabama. This amendment was drawn in no uncertain terms, and not only covered false and fraudulent claims on the labels, but also the claims printed on billboards or in advertising matter, thus striking a mortal blow at the fakes and frauds which have been a curse to the public. In obtaining the passage of the Sherley amendment, the venders of fraudulent prepara-

tions have won a complete victory, and again the interests of the public have been sacrificed in the guise and under the pretense of correcting an evil.

Statisticians tell us that the cost of living has doubled within twenty years, but we presume that the estimate includes the price of luxuries, the use of which has increased among all classes of people.

The price of actual necessities has increased, as one may learn by comparing to-day's cost of food products with the cost of the same products twenty years ago. As an evidence of this note the price of meat, flour, butter, eggs, lard, corn, beans, rice and practically all other food products. The farmer has profited by the increased prices, and while a few of the things he buys have also increased they have not increased in the same proportion, and in the case of farm implements and machinery the prices are very much lower. Wages and salaries have steadily advanced, and in fact the income from most lines of employment have increased to keep pace with the increased cost of necessities.

But in the case of the medical man the income, generally speaking, remains about the same. The doctor who twenty years ago charged one dollar for a call within a mile, and fifty cents for every mile beyond the first one, and fifty cents for an office consultation, is making the same charges now. Perhaps his services are worth no more now and perhaps less than they were worth twenty years ago, but he keeps the fees down and the community has to be shown that it is getting more and better service before it will overlook the precedent and stand from others a raise in the fees. The ordinary laboring man who now gets two dollars per day gives no more and no better service than he gave twenty years ago when he got but one dollar per day, but the average doctor, who gives better service than could be obtained twenty years ago, is expected to work for the same old fees.

"There's a reason" and it lies in the tendency of medical men to underestimate the value of their own services and to be ready to accept a reduction in fees if it means getting the practice. In practically every other department of human endeavor a systematic effort is made to raise the standard of compensation and the men stand together in attaining the desired end. In the medical profession it is every man for himself, and if a doctor starts out on a low plane he seeks to bring all medical men, even of his class, down to his level instead of making an effort to raise himself to the level of others who are above him. In union there is strength, and medical men should be bound by a closer bond of sympathy for one another in the struggle for a competence. Few doctors ever accumulate anything and many doctors at death leave their families practically destitute. This in part is due to bad business management, but in a large measure is due to small compensation for the life's work.

In this day of high cost of living and necessity for increased outlay in education and equipment to meet modern demands, it is no more than simple justice for the members of the medical profession, and the general physician in particular, to receive proportionately more than a physician of twenty years ago received for similar though perhaps not as efficient service. To accomplish this it will be necessary for the doctor who is now making calls within one mile for a dollar to increase his fee to two dollars. If he doesn't do this he is doing an injustice not only to himself, but to his confrères on an equal footing with him.

Considerable discussion has arisen as to the propriety of advancing the standard of medical education to the point where matriculants in medicine shall be required to furnish an academic degree.

We contend that it is not just nor to the best interests of medicine to deny medical education until a man has attained his academic degree, which in the vast majority of instances is not secured until he is 22 to 24 years of age, and oftentimes not until his 26th or 27th year. This means that if he has four years of medical college work, one year of hospital training (as offered by some schools) and perhaps an extra year of postgraduate work, he is anywhere from 32 to 36 years of age before he is able to begin the practice of medicine. By that time many of his ideals have changed — not always for the better—his natural tendencies toward home life have been altered, and mayhap, he will reach the age of 38 or 40 before he can be said to be really earning his living or before he can really afford to get married.

We have no quarrel with the educator who insists on thorough preparation for the practice of medicine, for we believe that the student can-

not be too well prepared, but we insist that the preparation should be along medical lines, after the ground work of a good preliminary education has been obtained. If education, as has been said, is simply a broadening of the mind, no matter in what channel, then there is no good and sufficient reason why an academic degree should not be granted to the student who pursues two years of purely academic work and then two years of purely scientific work, which is or should be included as the first two years of the medical course.

In other words, we have no objection to the lengthening of the medical course to five or even six years, but we do object to the exaction, considered by some medical colleges, which will require that a matriculant in medicine shall have an academic degree requiring four years after graduation from the high school. In our humble judgment it would be much better for those colleges or universities that are prepared to give the two degrees, to have a combined course, and if any lengthening is to be made, make it at the medical end rather than at the academic end.

We are not disposed at this late date to offer criticism concerning the change in the date of this year's session of the Association as fixed by the House of Delegates and for eight months published in The Journal, but we believe that it will be to the best interests of the Association to have a fixed time for the annual sessions. The exact time for the holding of the session is immaterial to us as long as the Association decides on some special time and then no change is made. With the publication of The Journal on the 15th of each month it is to the interest of the Association to have the annual session held the last week in the month so that the number of The Journal published just prior to the session will reach all members of the Association about a week or ten days before the annual session. If the sessions are to be held the first or second week in the month, then the date of publication of The Journal should be changed to correspond. But inasmuch as The Journal has always been published on the 15th of the month, it would seem better to have the Association meet the last week in September rather than the first or second week in October. We offer these suggestions because The Journal is the only means of advertising the annual sessions, and as the number preceding the annual session of the Association is expected to contain the official program, all committee reports and all special announcements, the number ought to come out just prior to the annual sessions instead of three or four weeks before. A medical society to be successful must be conducted on business principles and according to a system which takes into consideration the best interests of all concerned. The Journal can be of great assistance to the Association in furthering the Association's work, but The Journal cannot do its best if no attention is paid to the convenience of editors, publishers and contributors in arranging dates for the annual session of the Association. We therefore urge the House of Delegates to make an amendment to the By-Laws whereby a certain fixed time of the year shall be decided on for the annual sessions of the Association, and that this time be accepted by Committees on Arrangements, and that no change be made unless an emergency arises demanding change in the best interests of the Association.

Members of the Council are reminded that there will be a meeting of the Council at the office of President Wishard in the Hume-Mansur Building, at 5 p. m., Wednesday, October 9.

PRINCIPLES OF MEDICAL ETHICS*

Chapter I—The Duties of Physicians to Their Patients

THE PHYSICIAN'S RESPONSIBILITY

Section 1.—A profession has for its prime object the service it can render to humanity; reward or financial gain should be a subordinate consideration. The practice of medicine is a profession. In choosing this profession an individual assumes an obligation to conduct himself in accord with its ideals.

PATIENCE, DELICACY AND SECRECY

Sec. 2.—Patience and delicacy should characterize all the acts of a physician. The confidences concerning individual or domestic life entrusted by a patient to a physician, and the defects of disposition or flaws of character observed in patients during medical attendance should be held as a trust and should never be revealed except when imperatively required by the laws of the state. There are occasions, however, when a physician must determine whether or not his duty to society requires him to take definite action to protect a healthy individual from becoming infected, because the physician has knowledge, obtained through the confidences entrusted to him as a physician, of a communicable disease to which the healthy individual is about to be exposed. In such a case, the physician should act as he would desire another to act toward one of his own family under like circumstances. Before he determines his course, the physician should know the civil law of his commonwealth concerning privileged communications.

PROGNOSIS

Sec. 3.—A physician should give timely notice of dangerous manifestations of the disease to the friends of the patient. He should neither exaggerate nor minimize the gravity of the patient's condition. He should

* Adopted by the House of Delegates of the American Medical Association, at Atlantic City, N. J., June 4, 1912.

assure himself that the patient or his friends have such knowledge of the patient's condition as will serve the best interests of the patient and the family.

PATIENTS MUST NOT BE NEGLECTED

Sec. 4.—A physician is free to choose whom he will serve. He should, however, always respond to any request for his assistance in an emergency or whenever temperate public opinion expects the service. Once having undertaken a case, a physician should not abandon or neglect the patient because the disease is deemed incurable; nor should he withdraw from the case for any reason until a sufficient notice of a desire to be released has been given the patient or his friends to make it possible for them to secure another medical attendant.

Chapter II—The Duties of Physicians to Each Other and to the Profession at Large

Article I.—Duties to the Profession

UPHOLD HONOR OF PROFESSION

Section 1.—The obligation assumed on entering the profession requires the physician to comport himself as a gentleman and demands that he use every honorable means to uphold the dignity and honor of his vocation, to exalt its standards and to extend its sphere of usefulness. A physician should not base his practice on an exclusive dogma or sectarian system, for "sects are implacable despots; to accept their thraldom is to take away all liberty from one's actions and thought." (Nicon, father of Galen.)

DUTY TO MEDICAL SOCIETIES

Sec. 2.—In order that the dignity and honor of the medical profession may be upheld, its standards exalted, its sphere of usefulness extended, and the advancement of medical science promoted, a physician should associate himself with medical societies and contribute his time, energy and means in order that these societies may represent the ideals of the profession.

DEPORTMENT

Sec. 3.—A physician should be "an upright man, instructed in the art of healing." Consequently, he must keep himself pure in character and conform to a high standard of morals, and must be diligent and conscientious in his studies. "He should also be modest, sober, patient, prompt to do his whole duty without anxiety; pious without going so far as superstition, conducting himself with propriety in his profession and in all the actions of his life." (Hippocrates.)

ADVERTISING

Sec. 4.—Solicitation of patients by circulars or advertisements, or by personal communications or interviews, not warranted by personal relations, is unprofessional. It is equally unprofessional to procure patients by indirection through solicitors or agents of any kind, or by indirect advertisement, or by furnishing or inspiring newspaper or magazine comments concerning cases in which the physician has been or is concerned. All other like self-laudations defy the traditions and lower the tone of any profession and so are intolerable. The most worthy and effective advertisement possible, even for a young physician, and especially with his brother physicians, is the establishment of a well-merited reputation for professional ability and fidelity. This cannot be forced, but must be the outcome of character and conduct. The publication or circulation of ordinary simple business cards, being a matter of personal taste or local custom, and sometimes of convenience, is not *per se* improper. As implied, it is unprofessional to disregard local customs or offend recognized ideals in publishing or circulating such cards.

It is unprofessional to promise radical cures; to boast of cures and secret methods of treatment or remedies; to exhibit certificates of skill or of success in the treatment of diseases; or to employ any methods to gain the attention of the public for the purpose of obtaining patients.

PATENTS AND PERQUISITES

Sec. 5.—It is unprofessional to receive remuneration from patents for surgical instruments or medicines; to accept rebates on prescriptions or surgical appliances, or perquisites from attendants who aid in the care of patients.

MEDICAL LAWS—SECRET REMEDIES

Sec. 6.—It is unprofessional for a physician to assist unqualified persons to evade legal restrictions governing the practice of medicine; it is equally unethical to prescribe or dispense secret medicines or other secret remedial agents, or manufacture or promote their use in any way.

SAFEGUARDING THE PROFESSION

Sec. 7.—Physicians should expose without fear or favor, before the proper medical or legal tribunals, corrupt or dishonest conduct of members of the profession. Every physician should aid in safeguarding the profession against the admission to its ranks of those who are unfit or unqualified because deficient either in moral character or education.

Article II.—Professional Services of Physicians to Each Other

PHYSICIANS DEPENDENT ON EACH OTHER

Section 1.—Experience teaches that it is unwise for a physician to treat members of his own family or himself. Consequently, a physician should always cheerfully and gratuitously respond with his professional services to the call of any physician practicing in his vicinity, or of the immediate family dependents of physicians.

COMPENSATION FOR EXPENSES

Sec. 2.—When a physician from a distance is called on to advise another physician or one of his family dependents, and the physician to whom the service is rendered is in easy financial circumstances, a compensation that will at least meet the traveling expenses of the visiting physician should be proffered. When such a service requires an absence from the accustomed field of professional work of the visitor that might reasonably be expected to entail a pecuniary loss, such loss should, in part at least, be provided for in the compensation offered.

ONE PHYSICIAN TO TAKE CHARGE

Sec. 3.—When a physician or a member of his dependent family is seriously ill, he or his family should select a physician from among his neighboring colleagues to take charge of the case. Other physicians may be associated in the care of the patient as consultants.

Article III.—Duties of Physicians in Consultations

CONSULTATIONS SHOULD BE REQUESTED

Section 1.—In serious illness, especially in doubtful or difficult conditions, the physician should request consultation.

CONSULTATION FOR PATIENT'S BENEFIT

Sec. 2.—In every consultation, the benefit to be derived by the patient is of first importance. All the physicians interested in the case should be frank and candid with the patient and his family. There never is occasion for insincerity, rivalry or envy and these should never be permitted between consultants.

PUNCTUALITY

Sec. 3.—It is the duty of a physician, particularly in the instance of a consultation, to be punctual in attendance. When, however, the consultant or the physician in charge is unavoidably delayed, the one who first arrives should wait for the other for a reasonable time, after which the consultation should be considered postponed. When the consultant has come from a distance, or when for any reason it will be difficult to meet the physician in charge at another time, or if the case is urgent, or if it be the desire of the patient, he may examine the patient and mail his written opinion, or see that it is delivered under seal to the physician in charge. Under these conditions, the consultant's conduct must be especially tactful; he must remember that he is framing an opinion without the aid of the physician who has observed the course of the disease.

PATIENT REFERRED TO SPECIALIST

Sec. 4.—When a patient is sent to one specially skilled in the care of the condition from which he is thought to be suffering, and for any reason it is impracticable for the physician in charge of the case to accompany the patient, the physician in charge should send to the consultant by mail, or in the care of the patient under seal, a history of the case, together with the physician's opinion and an outline of the treatment, or so much of this as may possibly be of service to the consultant; and as soon as possible after the case has been seen and studied, the consultant should address the physician in charge and advise him of the results of the consultant's investigation of the case. Both these opinions are confidential and must be so regarded by the consultant and by the physician in charge.

DISCUSSIONS IN CONSULTATION

Sec. 5.—After the physicians called in consultation have completed their investigations of the case, they may meet by themselves to discuss conditions and determine the course to be followed in the treatment of the patient. No statement or discussion of the case should take place before the patient or friends, except in the presence of all the physicians attending, or by their common consent; and no opinions or prognostications should be delivered as a result of the deliberations of the consultants, which have not been concurred in by the consultants at their conference.

ATTENDING PHYSICIAN RESPONSIBLE

Sec. 6.—The physician in attendance is in charge of the case and is responsible for the treatment of the patient. Consequently, he may prescribe for the patient at any time and is privileged to vary the mode of treatment outlined and agreed on at a consultation whenever, in his opinion, such a change is warranted. However, at the next consultation, he should state his reasons for departing from the course decided on at the previous conference. When an emergency occurs during the absence of the attending physician, a consultant may provide for the emergency and the subsequent care of the patient until the arrival of the physician in charge, but should do no more than this without the consent of the physician in charge.

CONFLICT OF OPINION

Sec. 7.—Should the attending physician and the consultant find it impossible to agree in their views of a case, another consultant should be called to the conference or the first consultant should withdraw. However, since the consultant was employed by the patient in order that his opinion might be obtained, he should be permitted to state the result of his study of the case to the patient, or his next friend, in the presence of the physician in charge.

CONSULTANT AND ATTENDANT

Sec. 8.—When a physician has attended a case as a consultant, he should not become the attendant of the patient during that illness except with the consent of the physician who was in charge at the time of the consultation.

Article IV.—Duties of Physicians in Cases of Interference

CRITICISM TO BE AVOIDED

Section 1.—The physician, in his intercourse with a patient under the care of another physician, should observe the strictest caution and reserve; should give no disingenuous hints relative to the nature and treatment of the patient's disorder; nor should the course of conduct of the physician, directly or indirectly, tend to diminish the trust reposed in the attending physician.

SOCIAL CALLS ON PATIENT OF ANOTHER PHYSICIAN

Sec. 2.—A physician should avoid making social calls on those who are under the professional care of other physicians without the knowledge and consent of the attendant. Should such a friendly visit be made, there should be no inquiry relative to the nature of the disease or comment upon the treatment of the case, but the conversation should be on subjects other than the physical condition of the patient.

SERVICES TO PATIENT OF ANOTHER PHYSICIAN

Sec. 3.—A physician should never take charge of or prescribe for a patient who is under the care of another physician, except in an emergency, until after the other physician has relinquished the case or has been properly dismissed.

CRITICISM TO BE AVOIDED

Sec. 4.—When a physician does succeed another physician in the charge of a case, he should not make comments on or insinuations regarding the practice of the one who preceded him. Such comments or insinuations tend to lower the esteem of the patient for the medical profession and so react against the critic.

EMERGENCY CASES

Sec. 5.—When a physician is called in an emergency and finds that he has been sent for because the family attendant is not at hand, or when a physician is asked to see another physician's patient because of an aggravation of the disease, he should provide only for the patient's immediate need and should withdraw from the case on the arrival of the family physician after he has reported the condition found and the treatment administered.

WHEN SEVERAL PHYSICIANS ARE SUMMONED

Sec. 6.—When several physicians have been summoned in a case of sudden illness or of accident, the first to arrive should be considered the physician in charge. However, as soon as the exigencies of the case permit, or on the arrival of the acknowledged family attendant or the physician the patient desires to serve him, the first physician should withdraw in favor of the chosen attendant; should the patient or his family wish someone other than the physician known to be the family physician to take charge of the case the patient should advise the family physician of his desire. When, because of sudden illness or accident, a patient is taken to a hospital, the patient should be returned to the care of his known family physician as soon as the condition of the patient and the circumstances of the case warrant this transfer.

A COLLEAGUE'S PATIENT

Sec. 7.—When a physician is requested by a colleague to care for a patient during his temporary absence, or when, because of an emergency, he is asked to see a patient of a colleague, the physician should treat the patient in the same manner and with the same delicacy as he would have one of his own patients cared for under similar circumstances. The patient should be returned to the care of the attending physician as soon as possible.

RELINQUISH PATIENT TO REGULAR ATTENDANT

Sec. 8.—When a physician is called to the patient of another physician during the enforced absence of that physician, the patient should be relinquished on the return of the latter.

SUBSTITUTING IN OBSTETRIC WORK

Sec. 9.—When a physician attends a woman in labor in the absence of another who has been engaged to attend, such physician should resign the patient to the one first engaged, upon his arrival; the physician is entitled to compensation for the professional services he may have rendered.

ARTICLE V.—DIFFERENCES BETWEEN PHYSICIANS

ARBITRATION

Section 1.—Whenever there arises between physicians a grave difference of opinion which cannot be promptly adjusted, the dispute should be referred for arbitration to a committee of impartial physicians, preferably the Board of Censors of a component county society of the American Medical Association.

ARTICLE VI.—COMPENSATION

LIMITS OF GRATUITOUS SERVICE

Section 1.—The poverty of a patient and the mutual professional obligation of physicians should command the gratuitous services of a physician. But institutions endowed by societies, and organizations for mutual benefit, or for accident, sickness and life insurance, or for analogous purposes, should be accorded no such privileges.

CONTRACT PRACTICE

Sec. 2.—It is unprofessional for a physician to dispose of his services under conditions that make it impossible to render adequate service to his patient or which interfere with reasonable competition among the physicians of a community. To do this is detrimental to the public and to the individual physician, and lowers the dignity of the profession.

SECRET DIVISION OF FEES CONDEMNED

Sec. 3. It is detrimental to the public good and degrading to the profession, and therefore unprofessional, to give or to receive a commission. It is also unprofessional to divide a fee for medical advice or surgical treatment, unless the patient or his next friend is fully informed as to the terms of the transaction. The patient should be made to realize that a proper fee should be paid the family physician for the service he renders in determining the surgical or medical treatment suited to the condition, and in advising concerning those best qualified to render any special service that may be required by the patient.

Chapter III—The Duties of the Profession to the Public

PHYSICIANS AS CITIZENS

Section 1.—Physicians, as good citizens and because their professional training specially qualifies them to render this service, should give advice concerning the public health of the community. They should bear their full part in enforcing its laws and sustaining the institutions that advance the interests of humanity. They should cooperate especially with the proper authorities in the administration of sanitary laws and regulations. They should be ready to counsel the public on subjects relating to sanitary police, public hygiene and legal medicine.

PHYSICIANS SHOULD ENLIGHTEN PUBLIC—DUTIES IN EPIDEMICS

Sec. 2.—Physicians, especially those engaged in public health work, should enlighten the public regarding quarantine regulations; on the location, arrangement and dietaries of hospitals, asylums, schools, prisons and similar institutions; and concerning measures for the prevention of epidemic and contagious diseases. When an epidemic prevails, a physician must continue his labors for the alleviation of suffering people, without regard to the risk to his own health or life or to financial return. At all times, it is the duty of the physician to notify the properly constituted public health authorities of every case of communicable disease under his care, in accordance with the laws, rules and regulations of the health authorities of the locality in which the patient is.

PUBLIC WARNED

Sec. 3.—Physicians should warn the public against the devices practiced and the false pretensions made by charlatans which may cause injury to health and loss of life.

PHARMACISTS

Sec. 4.—By legitimate patronage, physicians should recognize and promote the profession of pharmacy; but any pharmicist, unless he be qualified as a physician, who assumes to prescribe for the sick, should be denied such countenance and support. Moreover, whenever a druggist or pharmacist dispenses deteriorated or adulterated drugs, or substitutes one remedy for another designated in a prescription, he thereby forfeits all claims to the favorable consideration of the public and physicians.

CONCLUSION

While the foregoing statements express in a general way the duty of the physician to his patients, to other members of the profession and to the profession at large, as well as of the profession to the public, it is not to be supposed that they cover the whole field of medical ethics, or that the physician is not under many

duties and obligations besides these herein set forth. In a word, it is incumbent on the physician that under all conditions, his bearing toward patients, the public, and fellow practitioner should be characterized by a gentlemanly deportment and that he constantly should behave toward others as he desires them to deal with him. Finally, these principles are primarily for the good of the public, and their enforcement should be conducted in such a manner as shall deserve and receive the endorsement of the community.

DEATHS

Dr. I. L. Babcock, of Rochester, died Aug. 19.

Dr. Harry E. Wilcox, aged 41, died suddenly at his home in St. Paul, Ind., August 10.

Dr. C. Taylor Ball, formerly of Terre Haute, died at Decatur, Ill., August 26, aged 58 years.

Dr. Jacob C. Tanner, aged 84, died near Lawrenceburg of heat prostration, September 6.

Mrs. Lucy A. Williamson, aged 58, widow of Dr. W. T. Williamson, died recently at her home in Fort Branch.

Mrs. Mary Kathryn Ford, aged 53, died near Mt. Auburn, September 4. She was the wife of Dr. W. M. Ford.

Dr. J. C. Holloway, until five years ago a practicing physician at Petersburg, died at Galesburg, Ill., August 25.

Dr. Lucian Bailey, aged 35, a practicing physician at Friendship, Ripley County, died suddenly from heart disease, August 26.

Dr. A. P. Murray, a well known Albany physician and Civil War veteran, died at his home in Albany, September 3. He was born Oct. 18, 1846.

Dr. George Anderson Russell, a graduate of the Central College of Physicians and Surgeons, Indianapolis, 1890, died at his home in Terre Haute, July 30, aged 50.

Dr. Abram D. Williams, aged 76, died at his home in Bedford, August 6, from acute indigestion, following a long illness. Dr. Williams was born in Williams, Lawrence County, in 1835, and studied medicine in Cincinnati, later going to Europe where he took post-graduate work on diseases of the eye.

Dr. John Morrison Ireland, aged 87, pioneer physician of Gibson County, died September 2, at his home in Francisco where he had practiced medicine for sixty years.

Dr. Fremont Swain, 50 years old, who has operated a sanitarium at 608 Middle Drive, Woodruff Place, Indianapolis, died September 2, following injuries suffered when he was struck by a passenger train. Dr. Swain was riding his bicycle when struck, and, landing on the pilot of the locomotive, was carried two blocks before the train was brought to a stop. Dr. Swain had lived in Indianapolis since a boy, and was a graduate of the Central College of Physicians and Surgeons.

Dr. Guido Bell, for forty-five years prominent as a practicing physician of Indianapolis, died at his home at 431 E. Ohio Street, September 13, following a stroke of apoplexy. Dr. Bell was born near Strasburg, Germany, Sept. 4, 1839, and graduated in medicine at Freiburg, Germany, in 1865. He came to Indianapolis and took up practice immediately after the close of the Civil War. He was physician to the Lutheran Orphan Asylum and consulting physician for the city dispensary. Dr. Bell was a member of the Marion County Medical Society, the Indiana State Medical Association and the Mississippi Valley Medical Association.

NEWS, NOTES AND COMMENTS

Dr. H. O. Bruggeman, of Fort Wayne, has recently returned from a two years' sojourn in Europe.

Dr. Frederick Vaile Overman, of Indianapolis, and Miss Elizabeth Lee, of Lafayette, were united in Marriage, August 9.

Dr. Eric A. Crull, Health Officer of Fort Wayne, attended the meeting of the International Congress on Hygiene at Washington.

Dr. and Mrs. Theodore Potter, of Indianapolis, spent part of August on the fishing grounds near Muskoka, Ontario.

Dr. Mary A. Spink will be at home to the women physicians of the Indiana State Medical Association the evening of October 9th, at eight o'clock, at Neuronhurst, 1140 E. Market Street, Indianapolis.

The Methodist Episcopal Hospital and Deaconess Home at Indianapolis has recently received $20,000 through the will of the late Mrs. Susan Dixon, of Shelbyville.

Dr. Arthur G. Fuller has recently filed suit in the Circuit Court to collect $700 from the town of New Carlisle for services rendered during a small-pox epidemic in 1907.

Dr. A. R. Kresler, of Rensselaer, has recently been elected a member of the city board of education. A new $30,000 high school building is now in process of construction there.

The Annual Graduating Exercises of the Training School for Nurses of Dr. W. B. Fletcher's Sanatorium, Indianapolis, were held on the eve of Founder's Day, August 17.

Since August 1, the following articles have been approved by the Council on Pharmacy and Chemistry:

Accepted for N. N. R.: Saloquinine, Merck & Co. Accepted for N. N. R. Appendix: Menthol-Iodol, Kalle & Co.

Dr. Miles F. Porter, of Fort Wayne, was elected president of the American Association of Obstetricians, at the annual session of that association, held in Toledo, Ohio, September 19. Providence, R. I., was selected as the meeting place for the session of 1913.

Drs. A. H. Kalbfleisch and Andrew J. Redmon were seriously injured September 4, when they were thrown from an automobile at Erie, five miles east of Peru. Dr. Kalbfleisch's left arm and three ribs were fractured. Dr. Redmon's face was cut and his left ear almost torn off.

Dr. Walter Dean Levi, formerly assistant physician to the Indiana Reformatory, who has recently returned from doing post-graduate work in London and Vienna, announces that he has opened an office in the Atherton Bldg., Louisville, Ky., and that he is limiting his practice to diseases of the eye, ear, nose and throat.

The greatest death well in Indiana, according to Dr. John Owens, of the State Board of Health, is near Oatsville, ten miles northwest of Oakland City. According to the statement of an Oatsville physician, the well, which is of the open type, has been the direct cause of ten deaths from typhoid fever. Another well in the same community has caused three deaths.

Twin baby girls arrived at the residence of Mr. and Mrs. Henry H. Miller in York township, near Lawrenceburg, following a cesarean section. So far as we know this is the first cesarean case in the state for twins.

The city board of health of Indianapolis recently voted to purchase a supply of typhoid fever vaccine to be distributed free on the recommendation of Indianapolis physicians, in an effort to prevent the usual fall recurrences of the disease.

The annual reunion of the students of the Kentucky School of Medicine will be held during the Indianapolis session. In order that this meeting may not conflict with the regular sessions or entertainments of the Association, the time and place of the reunion will be announced later.

A sanitary survey is to be made of New Albany by representatives of the State Board of Health. Special attention will be given to the condition of school buildings, drinking water supplies of the schools and other matters for the protection of the health of the children who attend school.

Dr. Klore W. Hidy, formerly an intern at the City Hospital, Indianapolis, hereafter will be in charge of the treatment of all cases of rabies under the direction of the state board of health. Dr. Hidy will give all of his time to the work and will be at the laboratory of hygiene at the State House.

Dr. S. J. Young, of Valparaiso, has recently received an appointment as surgeon in the medical reserve corps of the United States Army. The appointment is an honorary one in time of peace, but becomes an active one in time of war, and carries the rank of first lieutenant in the United States Army.

A recent report of the United Brotherhood of Carpenters and Joiners states that tuberculosis is the most prevalent death-causing disease among carpenters and their wives. In fact, the report states that the percentage of deaths from tuberculosis and heart disease is almost as high as that due to accidents

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The United States Civil Service Commission announces that examinations for trained nurse in the Isthmian Canal and the Indian services will be held on Oct. 16, 1912, as scheduled, but that the announcement of examination for this position in the Philippine service is cancelled because of advice from the Bureau of Insular Affairs that future vacancies in this position in the Philippine service will likely be filled by Philipino women.

The Gary Commercial Club has recently collected over $36,000 to be applied to a new $100,000 hospital to be built there. The money will be turned over to the Sisters of St. Francis, third order, who have been conducting a hospital in a tenement lent by the steel corporation. The general superintendents of the various steel mills, department heads and merchants acted as collectors. The hospital will be named the Mercy Hospital.

The First International Congress of Comparative Pathology will be held at the Faculty of Medicine of Paris from October 17 to 23, 1912. This Congress, organized by the Society of Comparative Pathology, will be occupied not only with the diseases concerning both men and animals in all series, but with the connection existing between the diseases of different species. Vegetable pathology and all possible connection between certain diseases of plants and animals will be discussed. All communications concerning the session should be addressed to M. Grollet, Secretary, 42 rue de Villejust, Paris.

"Very naturally much interest attaches not only in Fort Wayne, but all the state of Indiana, to the matter of of the successor of Albert E. Carroll as superintendent of the Home for Feeble-Minded Youth. And in this connection it is not amiss to discuss a phase of the matter that was brought out during previous administrations, and which impressed itself forcefully on Mr. Carroll and his board. Mr. Carroll was a splendid executive, and his long experience as a prominent employee of the institution peculiarly fitted him for the superintendency when that office was tendered him, yet he constantly contended with the embarrassment of being without specially qualified medical attendants. The appropriation for maintenance admitted only the employment of young doctors fresh from the colleges, who as a usual thing departed for more profitable fields of labor after short sojourns at the Home. The remuneration afforded was in nowise adequate to secure the services of a trained expert in the treatment of the diseases of defective children, and consequently none was ever secured. Yet it must be painfully patent even to the densest mind that there is a compelling need for just such a physician in this place. Undoubtedly by the labors of such a one the condition of many of the inmates could be radically improved, and possibly some of them brought to be useful members of society. Modern science and surgery have accomplished much along this line, and the possibilities presented at the Indiana Home are limitless.

"It has been suggested by one long deeply and intelligently interested in the development of the institution, that the ends of the public welfare would best be served by a modified division of the administration. The superintendent, it is maintained, should be a qualified physician, fitted by both education and experience for the peculiar work devolving on him there, while the routine work of management should be committed to some able steward, competent to relieve the superintendent of the routine grind of business control. Of course, the superintendent would stand as ranking officer, and to him the steward would be accountable. Yet the proposed division of labor would leave the superintendent practically free to devote his entire time to the study and treatment of the hundreds of pathetic cases entrusted to his care.

"To the *News* there is something in this suggestion that is powerfully appealing, and it is convinced that the problem will not be solved in the proper manner until action along this general line is taken. The legislature is soon to convene, and undoubtedly if the matter be presented to it in the proper light, a sufficient appropriation can be secured to make possible the adoption of the idea in practice. In the meantime, a temporary arrangement for control could doubtless be devised without prejudice to the interests of the home. The situation is one that calls for careful study and intelligent action."—*Fort Wayne Daily News.*

CORRESPONDENCE

A LIBRARY FOR A COUNTY MEDICAL SOCIETY

Terre Haute, Ind., Sept. 10, 1912.

To the Editor:—A few years ago the Vigo County Medical Society had no library of any kind. One of our members, an enthusiastic worker in the society, began to agitate the question of starting a collection of books and periodicals, which would serve as a nucleus, to which we could add from time to time such contributions as could be secured.

A room in the basement of the Fairbanks Library was turned over for the purpose of storing and caring for the books, and an arrangement made with the Committee of the School Board, which has the management of the library, that all full volumes of periodicals should be bound; further, the Board agreed to provide each year a

certain number of medical journals, the Society to provide an equal number, and in return the library becomes an integral part of the public library, subject to the same rules for taking out books, reference, etc.

A large number of journals, bound or unbound, were given by various members of the Society, and some large collections of old textbooks were added—the latter being of doubtful value, however. Libraries will do well to limit the number of such volumes. In this way a very fair collection had been secured in a comparatively short time; members found it difficult, however, to use the material because of the lack of a suitable index, the only approach to one being that in *The Journal of the American Medical Association*, and as that necessitates looking through each individual volume, the results were usually unsatisfactory and time-consuming.

This summer the Society availed itself of the services of an expert, who has made a thorough subject and analytical index; it is very complete and yet concise, the great number of cross references is a particularly fine feature. It is so arranged that a reader who wishes to investigate a subject, for example, "Thyroid Gland," is referred not only to articles in which thyroid appears in the title, but also to others where thyroid is dealt with in some part of the article, though the title may not suggest its presence. The reference being to the particular page on which "Thyroid" matter appears.

The Society expects to maintain and continue the index, adding from time to time such magazines as may be desired, the system being sufficiently elastic to permit this change without disturbance.

All things must have small beginnings. No society is too small to make the nucleus of a library, preserving especially magazines which otherwise would be lost or destroyed.

B. V. Caffee, M.D.

SOCIETY PROCEEDINGS

FORT WAYNE MEDICAL SOCIETY

Meeting of April 30

Society met in regular session in Assembly Room with seventeen members present.

Clinical cases. Dr. Porter: Incision as made for appendectomy and gall-bladder work in the rectus muscle never appealed to me because of the proximity of the internal epigastric artery. Within the last two months I have had secondary hemorrhage in infected cases following this incision. In neither case was the artery enlarged at operation. In neither could the hemorrhage be attributed to the drainage tube. Both stopped by clamping the artery. Incision (vertical right rectus) should not be used unless it cannot be avoided.

Dr. Stemen: I know of no artery which causes as much trouble as the epigastric artery because it retracts after being severed and one has difficulty in clamping and ligating.

Dr. B. Van Sweringen: I have always used this incision where I could because of the avoidance of hernia. Have never had any trouble with hemorrhage. Have had to ligate several times but never had any secondary hemorrhage. In pus cases it is in my opinion the best incision.

Dr. Porter, closing: Does not think that the vertical incision is any better under any circumstances than the McBurney incision. Does not think his experience is an unusual one. Thinks this incision increases the liability to pulmonary thrombosis.

Dr. Duemling presented a case of staphylococcic infection of the arm of a veterinary surgeon following manual extraction of a colt. One week ago to-day was called to deliver mare in foal and introduced his arm into the uterus. In two days noticed itching and several small ulcerations. On the fifth day had chill. Temperature rose to 103 and pulse 130. Has been treated with 1 to 1000 bichlorid applications, and has had two injections of staphylococcus vaccine 120 million to the injection. Blood culture not made.

Dr. S. D. Sledd read the paper of the evening on "Tetanus, with Report of a Case."

DISCUSSION

Dr. Metcalf: The bacillus tetanus is an anaerobe. Zutlich claims that there are two kinds of tetanus, one in which the effect is mostly on muscle where the infection takes place and then secondary infection of the nervous system, and the other in which the central nervous system is directly affected. Advocates the carbolic acid treatment and the prophylactic use of anti-tetanic serum.

Dr. Grandy: Doubts that the case reported by Dr. Sledd was tetanus. Three days incubation period is too short for tetanus.

Dr. B. Van Sweringen: I do not think we ought to forget that the best time to use anti-tetanic serum is immediately on the receipt of injury. The symptoms coming on so soon after the injury would seem to augur severe infection. A few years ago I had a case of blank cartridge wound. Symptoms came on ten days after injury. The serum in this case was of no avail.

Dr. Porter: I should be very much inclined to doubt the correctness of the diagnosis. First, the period of incubation and second the case being a mild one: these cases with short incubation are usually severe. Third, the long period of malaise following in this case makes me feel that the doctor had something else to deal with.

Dr. Stemen: Fortunately have had but one case of tetanus. Occurred in a compound fracture of the forearm and was fatal. Saw in an article in the *Railway Journal* that Dr. Murphy has every case of trauma coming into Mercy Hospital, Chicago, injected with the prophylactic dose of anti-tetanic serum. Does not think he would carry out this treatment. Had seven cases of puncture wounds of the feet in the hospital this

winter with no tetanus. He opens up every wound and cauterizes it with carbolic acid. Most of his cases are railroad injuries; and if he had an injury in a farm hand would use the serum.

Dr. Sledd: Would like to ask Dr. Porter what kind of infection there was in this case if not tetanus.

Dr. Porter: Would not presume to answer this question, but we have many infections which produce this condition, tetany, for instance, as produced by removal of the thyroid.

Dr. Wilking: I think the best time to give the serum is at the time of the injury, but I would not advocate not using the serum after infection begins. I know of one case in which the serum produced a cure.

Dr. B. Van Sweringen: I do not doubt that this case was one of tetanus. I have seen two cases of undoubted tetanus recover.

Dr. Porter, Jr.: Has seen ten cases of tetanus treated by subcutaneous injection of chloretone, and a series of ten cases treated by injection of the serum. The results were equally good. No cases recovered in which the incubation period was under ten or eleven days. In other words it seems to depend on this point, the shorter the period the more fatal and the longer the less fatal the infection.

Dr. Dancer: How sure are we that this fellow might not have had an injury prior to the time of this pitchfork wound?

Dr. Porter: I did not raise the question of diagnosis because the man got well. Unilateral symptoms, pain in muscles in the leg, and lingering illness seem to me might have been produced by some other infection than the tetanus in this case.

Dr. Weaver: It seems that Dr. Dancer's point is well taken. This man may have had some other trivial injury of which he was not aware. The tetanus is one of the normal flora of the intestines of horses and other animals. It seems more likely than that the incubation in this case was from three to five days. Serum treatment is practically worthless for therapeutic purposes, but is of extreme importance in prophylaxis.

Dr. Porter, Jr.: A man was thrown by a rope and bumped his head against a nail which punctured the skin and tissue of the forehead. Ten days afterward had a spasm and high fever. The idea prevailed that he had meningitis from the puncture wound. Death occurred in three days. The post-mortem showed no meningitis and no cerebral infection. An old wound was found on the hand unhealed. The conclusion was that the man died of tetanus from that wound.

The subject of Dr. Zehr's resignation was presented to the society. Motion made to table the resignation for three weeks in order to allow the secretary to communicate with the authorities of the A. M. A. for an expression of opinion regarding proper action in matters of this nature. Carried.

Commercial Club bill of $10.45 allowed.

Application of Dr. Herbert Ray acted upon favorably by the Board of Censors. Motion carried that secretary cast unanimous vote of society for Dr. Ray.

Adjourned. G. Van Sweringen, Secretary.

Meeting of May 7

Society met in regular session in the Assembly Room with twenty-three members present.

Dr. Grandy presented the case history of a child suffering with tuberculous meningitis.

Dr. Drayer, discussion: I had occasion to see the chart of this patient and was struck with the high temperature. In this case it was 106. This is not unusual in tuberculous meningitis. There was no scaphoid abdomen after three weeks.

Dr. B. Van Sweringen: Concerning the question of the tuberculosis being acquired in this case, the child was born of a tuberculous mother and nursed a tuberculous mother. Surely it was acquired.

Dr. Porter: Recalled the Poinsette theory that not every inflammation of tuberculous nature is of necessity due to the tuberculosis bacillus. His theory is that we have conditions, lesions such as dermatitis for instance, which are due to the intoxication of the toxins of the disease. The practical point in this case, he takes it, is that this child may have tuberculous meningitis and she may have no tubercles at the base of the brain.

Dr. Drayer: I would like to call attention to the value of spinal puncture in tuberculous meningitis. Tubercle bacilli are always present if you look long enough.

Dr. Weaver: One other point in Dr. Grandy's findings, and that is that tuberculous meningitis will give a leukocytosis when an uncomplicated tuberculous lesion elsewhere will not give a leukocytosis.

Dr. Drayer read a paper on "A Critical Study of 1,000 Obstetric Cases."

DISCUSSION

Dr. Rothschild: Pelvimetry should always be made. I have noticed on the third day following delivery that sugar occurred in the urine, which gave a positive reaction to Fehling's solution. When the milk came in the condition cleared up. There is nothing so disagreeable as prolapsed cord. In four cases it was replaced with good results. I do not believe that rupture of the membranes is warranted until the head is thoroughly engaged. The open vulva is a very frequent source of infection. The German obstetricians are beginning to object to the Credé method of placental expulsion on the ground that it delays involution and increases liability to hemorrhage. Every child should be put to the breast immediately after delivery and this should be persisted in. Often success will follow when failure seems imminent. Placenta prævia is treated by four methods: Braxton-Hicks, Cesarean section, by the introduction of rubber bags and by burrowing through the placenta, bringing down a part and thus checking the hemorrhage.

Dr. B. Van Sweringen: Would like to ask Dr. Rothschild what percentage of live babies were born by the methods he outlines.

Dr. Rothschild: About 25 per cent. better than by Braxton-Hicks in clean cases.

Dr. Porter: Regarding the percentage of placenta prævia, Shauta clinic gave mortality of 60 per cent. as far as the children were concerned. Personally, I have no doubt that in these cases where the mother is in good condition, Cesarean section gives best result. Certainly it gives the best risk to the child. Even when mother has likelihood of infection, Cesarean section is the best method. I quite agree with the facts of the Credé method. I believe that it has done more harm than good. I have seen numerous cases of hemorrhage resulting from the too hasty delivery of placenta. Cases of labor up to the present time have been shamefully treated.

Dr. B. Van Sweringen: Just a few days ago had occasion to deliver a case by Cesarean section where

forceps had been attempted. The cotyledons were retained and it was necessary to turn the inside of the uterus into the abdominal cavity in order to pull them off. In difficult occipito-posterior cases Cesarean section would be less dangerous to mother and child.

Dr. Wilking: Would like to have the discussion bring out the problem of nursing. It has been my ocasional experience that the breast has milk for a day or two but will give out.

Dr. Metcalf: How long do you wait for placenta to be delivered?

Dr. Drayer: Thinks Cesarean section is best plan for delivery of placenta prævia. Thinks rupture of the sac is a good plan in normal position. Believes that it aids labor and renders it less painful.

Bills of C. J. Lose for $1.50 and Gladys Miller for $20.95, and Rehling for $1.50 ordered paid.

Adjourned. G. VAN SWERINGEN, Secretary.

Meeting of May 14

Society met in regular session in Surveyor's office with thirteen members present.

Clinical cases. Dr. K. C. Evans, Payne, Ohio, reported the following case: Mr. J., aged 49. Swiss descent. Both parents dead, mother at 76. cause unknown; father at 65, accidental death. Three brothers, one living. One died at 18 years, cause of death unknown; one at 38 of "lung trouble." Six sisters, one living. One died at 18 suddenly from "heart disease"; one died during confinement at 22; one at 24, cause of death, tuberculosis; the fourth and fifth died from pulmonary tuberculosis. Trouble began in patient's mouth seven years ago. Had slight enlargement of roof of mouth similar to a fibroid growth. Was operated upon July 3, 1911, by Dr. Duemling. The second operation was in September, 1911. Growth was a fibroma. There remained a sinus in roof of mouth from the antrum of Highmore which has remained open.

Discussion, Dr. Bulson: The wound is healthy and should be closed. Must prevent antrum infection. If not possible to close should have dental plate made. Proper way to drain antrum is through nose, and opening into mouth should be closed.

Dr. Porter: Opening in mouth would be easy to close but soft palate would be hard to close. Does not need drainage to antrum unless it is infected. Failed to see necessity for opening into antrum unless there was some infection.

Dr. Porter reported a case of brain abscess. Patient, woman, married, aged 50. Never pregnant but once, then gave birth to triplets, all living. Taken sick ten weeks before my visit with severe tonsillitis, followed in a few days by otitis media with rupture of drum membrane. Following ear trouble there developed a number of abscesses in vascular tissue of arm. Prior to rupture drum membrane there had been pain in ear and also in same side of head (left). After rupture of drum membrane, pain in ear subsided, and during activity of arm lesions pain in head did not seem so severe. A week before my visit she developed a well-marked amnesic aphasia, and the day before my visit became semi-comatose. Absolutely no localizing brain symptoms except the aphasia and pain in left side of head. Diagnosis of bacteriemia with a localized abscess in the word-memory center. Advised against operating unless patient could be moved to hospital. She died within twenty hours after my visit, and post-mortem revealed an abscess about the size of a walnut lying close to surface in anterior portion of temporal lobe. A timely recognition of the condition would have given patient a good chance to live through operative interference notwithstanding the fact that she did have a streptococcic invasion of the blood stream and the meninges.

After my visit I learned from Dr. McCaskey that he had recovered streptococci from spinal fluid and also from blood of this patient from samples taken four or five days before my visit, the result of which I heard nothing until after patient's death.

Dr. Bulson: The report of this case is like many others in which a pyemic abscess originates from extension of infection in the middle ear. The middle ear trouble is given but little attention unless there is severe pain, and then many general physicians prescribe an opiate to give relief until the drum membrane ruptures. When the drum membrane ruptures, the patient, and usually the physician, thinks that there is an end to the trouble. However, the infection may have extended beyond the middle ear cavity before the drum membrane has ruptured, and in consequence the meninges are involved by an extradural abscess, or there may be a thrombophlebitis through invasion of the venous channels. A frequent site of extension of the infection from the middle ear cavity is through the tegumen tympani, in which case there will be an involvement of the tempero-sphenoidal lobe. A more common route of extension is through the aditus ad antrum to the mastoid cells and antrum and thence by a necrosis of bony tissue either the meninges are involved or the lateral sinus. An involvement of the lateral sinus presents the well-known symptoms of a thrombophlebitis with the exception that the rise in temperature is usually sharper and more marked, and is usually accompanied by chills. If there is no relief by operative interference the affection goes on to a general pyemic process, with abscesses in various portions of the body. I have seen two or three cases of this character in which the diagnosis of pyemia was made but there was a general failure to recognize the fact that the pyemic process had its origin in the middle ear cavity; which only goes to show that a suppuration of the middle ear is not a simple thing and should be given prompt and appropriate attention.

MANIA FOLLOWING OPERATION FOR MASTOIDITIS

Dr. Bulson reported a case of acute mastoiditis requiring operation in which the patient developed violent mania twelve hours after operation. The surprising feature was that whereas the patient was emaciated and exhausted when he entered the hospital, and had to be carried to his room, he exhibited phenomenal strength immediately after his mania developed and it required several nurses to keep him from jumping from the window or otherwise injuring himself. It was impossible to keep the patient in bed, and finally no attempt was made to do so. At the end of a week it was thought advisable to permit the patient to be taken to his home. It was learned later that the patient's father had died in an asylum some six weeks previously, and that insanity was a hereditary tendency in the family.

Dr. Porter: It is not a rare thing to see postoperative mania, mostly not related to the conditions for which operation was done.

Dr. Morgan: Has seen two cases of puerperal mania. Both cleared up.

Dr. B. Van Sweringen: Had case of mania following the removal of a large ovarian cyst. Patient had arteriosclerosis. Got much better. Believe most of these cases follow sepsis.

Dr. Morgan reported a case of puerperal eclampsia in which bleeding was attempted. Got one spurt of blood from median vein, then bleeding stopped.

Committee on Public Health and Legislation reported that Dr. Wentz, of the United Doctors, was arrested and fined $100 and costs for practicing medicine without a county license.

President Weaver asked if the Society cared to take the resignation of Dr. Noah H. Zehr from the table. Motion carried that Dr. Zehr's resignation be taken up.

Dr. Morgan made motion that Dr. Zehr's resignation be not accepted. Carried.

Adjourned. G. Van Sweringen, Secretary.

KOSCIUSKO COUNTY

The regular meeting of the Kosciusko County Medical Society was held August 27. Called to order by President McDonald.

Dr. Hines, as county health officer, reported progress on getting after the quacks.

Drs. DuBois and McDonald talked on Murphy's method of treating a Colles' fracture.

Cases were reported by Drs. Warvel, Thomas, McDonald, DuBois and Howard.

Adjourned. C. N. Howard, Secretary.

LAKE COUNTY

The annual picnic of the Lake County Medical Society was held in Lake Front Park, Hammond, August 8, about fifty being present. A heavy rain prevented many from attending. A general letter had been mailed to the wives and families of the members, asking them to take charge of the picnic, and to this is attributed the huge success, both socially and gastronomically. Despite the unfavorable weather this was the most successful of the annual affairs.

President Evans appointed the following committees to take charge of the November meeting of the Tenth District Medical Society to be held in the Hammond Country Club: Program, Drs. Evans, Scull and Shanklin; Finance, Drs. Graham, Young and Toner; Arrangements, Drs. Sharrer, Howat and Collins.

Adjourned. E. M. Shanklin, Secretary.

MARSHALL COUNTY

The Marshall County Medical Society met in regular session August 29 at Dr. Eidson's cottage at Pretty Lake. Meeting called to order by president.

Dr. Reid, surgeon to Culver Military Academy read a paper on the subject, "The Doctor, the Public School and the Public Health." General discussion.

Dr. Reid presented his application and was elected to membership.

Following the scientific session the members of the society were given a fish dinner by Dr. and Mrs. Eidson.

Adjourned. A. A. Thompson, Secretary.

THE TRUTH ABOUT MEDICINES

This department presents, in concise form facts about the composition, quality and value of medicines. Under "Reliable Medicines" appear brief descriptions of the articles found eligible by the A. M. A. Council on Pharmacy and Chemistry for inclusion with "New and Nonofficial Remedies." Under "Reform in Medicines" appear matters, tending toward honesty in medicines and rational therapeutics, particularly the reports of the A. M. A. Council on Pharmacy and Chemistry and of the Chemical Laboratory.

The text on which these abstracts are based may be obtained from the American Medical Association, 535 Dearborn Avenue, Chicago.

RELIABLE MEDICINES

Articles found eligible by the Council on Pharmacy and Chemistry for inclusion with "New and Nonofficial Remedies."

Purified Extract of Adrenal Gland, Mulford, is an extract of the suprarenal gland, standardized physiologically by measuring its effect on blood-pressure and so adjusted as to correspond to the effect of 4 per cent. of purified epinephrin.)It has, therefore, approximately four times the strength of desiccated suprarenal gland U. S. P. It is marketed as follows: Adrenal Ointment, Mulford, containing purified extract of adrenal gland, Mulford, 25 parts, boric acid 1 part in 1,000 parts. Urethral Suppositories Adrenal Comp., Mulford, each containing purified extract of adrenal gland 0.06 gm. (1 grain), cargentos 0.13 gm. (2 grains). Vaginal Suppositories Adrenal Comp., Mulford, each containing purified extract of adrenal gland 0.06 gm. (1 grain), cargentos 0.13 gm. (2 grains), ichthyol 0.13 gm. (2 grains). H. K. Mulford Co., Philadelphia (*Jour. A. M. A.*, July 13, 1912, p. 121).

Articles Accepted for N. N. R. Appendix:—

Lozenges Adrenal Comp., each containing dried suprarenal gland 0.01 gm. (1/6 grain), menthol 0.0013 gm. (1/50 grain), benzoic acid 0.0026 gm. (1/24 grain), eucalyptol 0.0013 gm. (1/50 grain).

Rectal Suppositories Adrenal, each containing dried suprarenal gland 0.3 gm. (5 grains) (*Jour. A. M. A.*, July 13, 1912, p. 121).

Articles Accepted for N. N. R. Appendix:—

Syrup of Quinine with Chocolate, containing quinine sulphate 2.156 cm. in 100 c.c. (10 grs. in a fluid ounce).

Ointment of Cargentos and Ichthyol, containing cargentos 5 per cent. and ichthyol 5 per cent. (*Jour. A. M. A.*, Aug. 3, 1912, p. 369).

REFORM IN MEDICINES

Taka-Diastase and Liquid Taka-Diastase.—About three years ago the Council on Pharmacy and Chemistry rejected Taka-Diastase and Liquid Taka-Diastase because examination showed that the products on the market did not comply with the claims made for them. Recently it was decided that a reexamination should be made to ascertain whether the preparations were now in accord with the claims made for them by the manufacturer. The examination having shown that unwarranted claims are still made, the committee which made the examination recommended that the

rejection of Taka-Diastase and Liquid Taka-Diastase be allowed to stand. The report having been submitted to Parke, Davis & Co., this firm reiterates its claims for the digestive power of Taka-Diastase, but admits that it will not reduce the stated amount of starch to the colorless end-point in ten minutes (the standard method for the valuation of diastase). It further states that it would change the word "digest" on the label to "liquefy." In view of the contention of Parke, Davis & Co., the Council referred the entire matter to a member of the Council's staff of clinical consultants for final recommendation. This referee concludes that the claims of the manufacturers regarding the strength and properties of the material are erroneous and exaggerated; that the literature still sent out by Parke, Davis & Co. is misleading, and that if substitution of the word "liquefy" for "digest" were endorsed by the Council confusion would result which would give an exaggerated and false value to Taka-Diastase. The Council accepted the recommendation of the referee and voted that the rejection of Taka-Diastase and Liquid Taka-Diastase be allowed to stand (*Jour. A. M. A.*, July 6, 1912, p. 50).

Calcium Glycerophosphate.—Believing that the glycerophosphates were of some probable value, the Council decided to describe calcium glycerophosphate in New and Nonofficial Remedies, so that definite standards of quality might be prescribed. The Association's Chemical Laboratory having, at the request of the Council, taken up the examination of the supply of calcium glycerophosphate on the American market and entered into correspondence with the manufacturing houses, now reports that no product of even fair quality is to be had, and that those who make it appear not inclined to make improvements. Investigation having shown that the glycerophosphates are probably not superior to ordinary inorganic phosphates, there is little likelihood that a consequent decreasing demand will be any inducement to provide a good quality of drug in the future. In view of these conditions, the Council decided not to describe the drug in New and Nonofficial Remedies (*Jour. A. M. A.*, July 13, 1912, p. 134).

A German Council on Pharmacy and Chemistry.—An appreciation by German physicians of the need for reform in proprietary medicines has finally culminated in the establishment of a German Council on Pharmacy and Chemistry to be known as "Die Arzneimittellkommission des Kongresses für innere Medizin" In a preliminary report this commission has classified the advertisements for proprietary medicines, which appeared in German medical journals during 1911, into three classes according to certain rules which correspond essentially to those of the A. M. A. Council. The first list includes remedies the method of advertisement of which complies with these rules (positive list). The second list includes remedies the advertisements of which do not comply with the established rules (negative list). In the third list are placed those articles regarding which the commission was unable to form an opinion (doubtful list) (*Jour. A. M. A.*, July 27, 1912, p. 291).

The Physician and Drug Standards.—In view of the decision of those who are in control of the revision of the U. S. Pharmacopeia and of the National Formulary to make the first a book of standards for drugs, regardless of their therapeutic value, and the latter a book of formulas, good, bad and indifferent, Henry P. Hynson, a pharmacist, proposes that two other books should be published. The first book is to contain those drugs which the medical profession deems valuable and its scope is to be determined by the American Medical Association. The second book is to contain the pharmaceutical preparations made from the drugs contained in the first book and is to be prepared by the American Pharmaceutical Association. There has long been a demand for a book restricted to the really useful remedies particularly by medical teachers and state board examiners and it is quite probable that one will soon be announced by a committe created for the purpose by the Council. The proposition of Hynson is a recognition of the fact that the two present standards, the Pharmacopeia and the National Formulary, do not fulfil the practical requirements of practicing physicians, teachers and examining boards (*Jour. A. M. A.*, July 27, 1912, p. 291).

The German Council on Pharmacy and Chemistry.—As was to be expected German manufacturers are opposing the newly established German Council on pharmacy and chemistry. One phase of this protest is especially characteristic of Germany's tendency; it is charged that this report is liable unfavorably to affect the sale of German proprietaries in foreign countries. To those physicians who feel that patriotism demands the support and advancement of all German industry regardless of its character, we would say that the time has long passed when we in this country took as gospel truth the claims made in German advertising circulars and in the many articles exploiting proprietaries which come to us in the form of reprints from German medical journals (*Jour. A. M. A.*, Aug. 10, 1912, p. 452).

Certified Pharmacies.—The plan of examining pharmacies and issuing licenses to those which are found properly equipped, competent and reliable was recently proposed at a joint meeting of the Medical Society of the County of New York and the New York branch of the American Pharmaceutical Association. While the establishment of requirements for such certifications should be carefully considered, the need of a dividing line between the druggist whose energies are chiefly devoted to the sale of cigars, chewing-gum, soda-water and patent medicines, and the pharmacist to whom one may safely entrust the compounding of prescriptions is so urgent that we shall look forward to the outcome with much interest (*Jour. A. M. A.*, Aug. 10, 1912, p. 461).

Midol and Nurito.—Repeated warning to the public of the dangers of acetanilid, antipyrin and acetphenetidin has largely been responsible for the growing unpopularity of nostrums containing these drugs. As a result pyramidon, a product closely related to antipyrin, is entering the patent medicine world in the form of "Midol" and "Nurito." Midol is exploited by the General Drug Co., which appears to be connected with the Consolidated Color and Chemical Works and Victor Koechl & Co. Examination made in the Association's

Chemical Laboratory indicated that the headache remedy "Midol" consists essentially of pyramidon, while Nurito consists of powders each containing pyramidon 6 2-3 grains and phenolphthalein 2-3 grain (*Jour. A. M. A.*, Aug. 10, 1912, p. 461).

Rheumatism Phylacogen.—A physician inquires: "What do you know for or against Rheumatism Phylacogen, put up by Parke, Davis & Co.? Quite a number of my patients ask me about it, and I am unable to tell them anything, except that, as I know nothing of it, I will not use it." The resolution not to use this remedy, since he knows nothing of it except the information furnished by its promoters, is the proper one. Physicians have no moral right to employ remedies of whose nature they are ignorant nor should they accept the statement of interested parties who fail to give them full scientific information. Until further reliable information as to composition is furnished the preparation must be regarded as a possibly dangerous nostrum. (*Jour. A. M. A.*, Aug. 10, 1912, p. 464.)

Hormonal.—Hormonal was accepted by the Council on Pharmacy and Chemistry for inclusion in New and Nonofficial Remedies, in view of the favorable reports concerning its action which have been made in the literature. Since its acceptance, a number of cases have been reported in which more or less alarming collapse has occurred during or immediately following its administration. The collapse is attributed by Zuelzer, the originator of the preparation, to an impurity of albumose. It is evident that the remedy should be employed with great caution. (*Jour. A. M. A.*, Aug. 10, 1912, p. 465.)

Radioactive Substances in Therapy.—From a discussion on the therapeutic value of radioactive preparations at the German Congress of Internal Medicine in April of this year, the conclusion seems to be justified that very large doses of the emanations or of the thorium X solutions are necessary to secure therapeutic results and in these cases the therapeutic results appear to be separated from the toxic action by a very narrow margin. It is evident, therefore, that the use of these substances is still in the experimental stage, that little if any effect is to be expected from preparations on the market, especially as they contain only extremely minute doses which, although probably safe, are probably also worthless. (*Jour. A. M. A.*, Aug. 17, 1912, p. 541.)

Medical Meetings as Advertising Mediums.—The promotion of a proprietary nostrum by means of papers read before a medical meeting has gone out of vogue in this country. But while conditions have improved here, they seem to have grown worse in Germany. Now, however, it appears that a halt will be called before long. Recently Dr. Bernheim of Paris, who is much interested in the exploitation of a new "consumption cure" read a paper before the German Congress for Internal Medicine. Later this paper was reprinted and distributed by the promoters of dioradin. Included with this reprint were testimonials which originally were not a part of the paper. The reprint bore the imprint "German Congress for Internal Medicine" and thus the society was made to lend official sanction to the testimonials. In view of this a protest has been issued by the presiding officer, Professor Penzoldt. This protest is evidence that the German medical profession is awakening to the wretched conditions which have developed in that country in connection with the exploitation of proprietary medicines. (*Jour. A. M. A.*, Aug. 17, 1912, p. 549.)

An Opportunity for the Pharmacist.—Although the pharmacist can do much toward the advance of medicine and also toward the improvement of the public health, his commercial tendencies have to a large extent made him lose sight of his opportunity. While, in particular, the tendencies of the National Association of Retail Druggists towards the perpetuation and extension of the patent medicine and the nostrum business have not been a credit to pharmacy, *N. A. R. D. Notes*, the official organ of the N. A. R. D. has started a public health propaganda department in which the druggist is urged to protect the public by giving advice as to the seriousness of various diseases and the need of their treatment by trained physicians. When it is considered that a large number of people go to their druggist for advice or treatment for ailments of all kinds, the opportunity which is in the hands of the pharmacist will be appreciated. (*Jour. A. M. A.*, Aug. 17, 1912, p. 560.)

Marjorie Hamilton Obesity Cure Aftermath.—Following the exposure of the Marjorie Hamilton Obesity Cure (*Jour. A. M. A.*, March 16, 1912, p. 798) the United States postal authorities took a hand and on June 7, 1912, W. C. Cunningham and his wife, Marjorie Hamilton Cunningham, were indicted by the federal grand jury and placed under arrest for fraudulent use of the mails. Although, since the Marjorie Hamilton business was exposed, Cunningham has branched out into a new mail-order fake line, a "quick wrinkle remover" introduced by "Princess Tokio," the Denver papers now announce that he will withdraw from business and confine himself to the European field—where frauds of this sort are less liable to be molested. (*Jour. A. M. A.*, Aug. 17, 1912, p. 561.)

Tyree's Antiseptic Powder.—For years Tyree's Antiseptic Powder was advertised to the medical profession with claims that were unwarranted as to both composition and therapeutic effect. Analyses show that the preparation was essentially nothing but a simple mixture of sulphate of zinc and boric acid. The medical profession having prescribed the nostrum, the original package scheme did the rest and now Tyree's Antiseptic Powder goes to the public direct. It is now advertised in newspapers as "Ideal for douche," "Best preventative known," etc. That a nostrum of this sort should go to the public is not surprising, but that it should have reached the public through the instrumentality of the medical profession is a serious reflection on the judgment of physicians. That the exploiters of this nostrum no longer find it profitable to use medical journals as a means of getting their stuff to the public but must needs use the more expensive newspaper advertising, is cause for optimism. It means that physicians are no longer prescribing, indiscriminately, proprietary products and that they are refusing to be, what they have been in the past, the unpaid distributing agents for nostrum venders. (*Jour. A. M. A.*, Aug. 24, 1912, p. 666.)

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ORIGINAL ARTICLES

THE STATUS OF THE MEDICAL PROFESSION *

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In recent years a new system of philosophy has been outlined by one of the great thinkers of France. It has been called by one of its disciples "the philosophy of change," and the fundamental idea on which it is built is the recognition of the fact that everything is in a state of unceasing transition. The heretofore recognized entities, the time-accepted fixities, the environment and conditions of life, life itself, all are in active process of evolution — changing and evolving before our eyes.

A hasty retrospect of the arts and sciences gives evidence confirmatory of the thought. The past quarter of a century adds, possibly, more striking proof than all the ages that have preceded it. Unrest, the visible manifestation of mental activity and energy, it would appear, has marked our era for its own. With confusing and maddening rapidity, data, methods and points of view change as in a kaleidoscope. That which to-day we tabulate as fully comprehended and fixed, to-morrow we rearrange and reclassify. No longer in the world of science are there sacred things or secret places that the investigator may not analyze or explore. Doubt no longer presages damnation and destruction, but has become the very essential of salvation and safety. One thing, and one thing only, seems to be stable and certain, and that is the unswerving steadfast purpose to find out the truth. Facts are now the coin of the realm in the republic of science, by means of which it is hoped to obtain knowledge and control of the laws that regulate the phenomena of existence. To-day then, more than ever before, is it true that "humanity is an army on the march. Where the vanguard rests to-day the rearguard camps to-morrow."

Nor is it only in the world of science that this is true. Every phase of life, every field of endeavor, all sorts and conditions of men, seem to have been caught in the tumult of thought and activity. Politically there has resulted a whirl of conditions and complicated affiliations that threatens at times the very landmarks and stability of society. Out of the gruesome conglomeration, however, beams one satisfying, inspiring ray — as the idols have been dethroned and broken, individuality has not been lost. Personal opinions and individual prerogatives have been preserved. In the business world the stress has resulted in a bizarre panorama of competition and antagonism, cooperation and combination, wheels within wheels and circles commingling and conflicting with circles. So strenuous and far-reaching has the industrial unrest become that the stamp of commercialism has been placed on the age we live in — an evidence of the impaired perception and narrowness of thought too often apparent in the hurry engendered by the perturbation of our times. Theology too has had to bear the shock of the higher criticism of the day. Not only in the matter of tradition and faith has the influence of scientific investigation been felt, but the history and ethics of religion have been subjected to the most scrutinizing examination, while at almost every turn new faiths and heretofore unknown cults have arisen to promulgate their multitudinous tenets and proclaim their numerous shibboleths.

* The President's Address delivered at the Annual Session of the Indiana State Medical Association, at Indianapolis, Oct. 10, 1912.

To the members of the medical profession the spirit of the times has extended in various ways. Some with eager intent have plunged into the earnest work of research, content with patience and equanimity to seek the radiant face of truth, unmindful of the clamor and confusion in the great world about them. Others, listening with sympathetic ear to the siren call of ambition or notoriety, have bartered faith and principle for a commanding position in the ever-changing puppet show, and have dethroned, for the brief span of life, the truth, to place in its stead opportunism—that system of inconstancy and lack of equilibrium that inevitably leads to chaos. Others, obsessed with the idea that anything may be acquired for a price, bowing the knee to Baal, have sworn fealty to the god of wealth, and exchanged duty and the privilege of service for a part in the narrow commercialism filling the field of vision of so many of mankind. Still others, holding duty and personal usefulness to be greater than wealth or fame or notoriety, have devoted themselves wholeheartedly to the practice of their art, and the service of their fellow-men. They have gleaned from all sources, they have gathered the results of the researches of others, they have garnered the discoveries of their fellow-men and applied them to the needs of the inefficient and ailing of mankind. Bringing the treasures of all ages and climes, they have melted them in the crucible of service—for the welfare of humanity and the glory of their art.

From all this it is apparent that the universal unrest has had a widely differing effect on the individual members of our profession, the varying results depending on the individual temperament, character, inherited tendencies and susceptibility to the influences of environment. Out of the pot-pourri has arisen a heterogeneous mass of cults, born of ardent desire, sired by ignorance and fostered by fear and fraud—some of them medico-religious in form and method of procedure, some of them with elaborate rituals and technic reared on a fragment of truth, or a figment of fancy, torn by uncomprehending minds from their proper associations. In what light the public at large has come to view the many faced medical profession, its imitators and substitutes, is worthy of earnest thought on our part.

There is little room for doubt that the keenly reflective portion of the laity fully understand the conditions that exist, both in and concerning the medical profession. Nor can there be any doubt that with this class the achievements of medical science are fully comprehended and appreciated. To the intelligent and thoughtful it is clear that our profession, like every other profession, is composed of individuals of widely varying grades of temperament and character; that, in spite of many defects and failures, the general trend of the profession has been upward not downward, forward not backward, for the betterment of humanity, both as a whole and as individuals; and for the increase of physical, mental and ethical efficiency. On the other hand this reflective class is fully aware of the fact that to many the pursuit of medical practice is but a means to an end, and not in itself an all-consuming passion. They are cognizant, too, of the tendencies to which some of the profession have yielded, and clearly understand the evil effect these tendencies, and the practices engendered by them, are having both on the profession and the public. They also perceive and appreciate that deficient educational qualifications and equipment constitute the causal factors that mar the usefulness, destroy the devotedness and preclude the possibility of success of many practitioners, thus paving the way for the practice of questionable, if not actually pernicious, methods of procedure.

So much for the attitude of the thoughtful and intelligent, but what of that great mass of humanity whose thoughts are excited by the accidental and spectacular events of life — those whose ideas are shadowy and evanescent — or those whose mental state is that of indifference, susceptible only to the influences of superstition and guile? Here, it is an instance of complex acting and reacting on complex. The mass of humanity, influenced by many varying passions and sentiments, guided by the changing, vacillating education of the day, ruled and governed by the multitudinous powers of heredity and environment — in short, "the mutable many" — are being called on in questions of life and death, of weal and woe, to pass judgment on a so-called learned profession. And, as should have been expected, there is no hesitation in the matter, or halting in the manner, of passing judgment, and likewise no placid uniformity in the judgments rendered. Accordingly it has come about that in some quarters the medical profession is looked on with reverential, even superstitious awe; in others, with scarce concealed suspicion as to its purity of motive and its honesty and safety of performance; in others with dread and fear; and in yet others with a feeling of indifference born of the idea that the medical, like the legal or the clerical, profession is a necessary evil—a burden heavily borne at all times—though yielding pos-

sible benefits in times of dire stress; in still other quarters the profession is classed as venal — as having a price—as being a fraternity of "friendly leeches," dispensing for a remuneration potions for good or evil purpose; and in others, there are those who have discerned the high ideals of our art, the actual consecration to service, the devotion to duty and the unflinching martryrdoms of those glorious physicians who have both in the glare of publicity and in the modest seclusion of the humblest and most restricted spheres of action, added lustre to our calling, glory to humanity and inspired the creation in literature of Benassis, Maclures, and hosts of other doctors —pen portraits that have been drawn by masters from living models.

There have been times when the physician has been considered more than a servitor hastily summoned in the day of calamity or disaster, to stay, for a recompense, the ravages of disease or the hand of impending fate. He has been counsellor, guardian, guide and friend as well. He has been appreciated, respected, even reverenced, not only in the time of sickness, but also in the season of health. He has been an actual first citizen whose ideals, inherent in the humanitarian calling he had adopted, have been good and sufficient guarantee of honorable dealing, and against breaches of trust. Happily for our self-respect and peace of mind this type of physician has not entirely disappeared, but, on the contrary, its presence is being daily demonstrated in various localities. Such types could inspire a Stevenson to write: "There are men and classes of men that stand above the common herd—the soldier, the sailor, and the shepherd not infrequently; the artist rarely; more rarely still, the clergyman; the physician almost as a rule. He is the flower (such as it is) of our civilization; and when that stage of man is done with, and only remembered to be marveled at in history, he will be thought to have shared as little as any in the defects of the period, and most notably exhibited the virtues of the race. Generosity he has, such as is possible to those who practice in art, never to those who drive a trade; discretion, tested by a hundred secrets; tact, tried in a thousand embarrassments, and what are more important, Heraclean cheerfulness and courage. So it is that he brings air and cheer into the sick room, and often enough, though not so often as he wishes, brings healing."

Gloss the facts, however, as we may, the good old glorious type of big-hearted, many-sided physician is passing and is being succeeded (at least in the popular mind) by an army of specialists—individuals keen of intellect, majestic of attainment, earnest, it may be, of noble purpose, occasionally unscrupulous of method, but concentrating their abilities in ever narrowing fields of thought and spheres of action. Thus while humanity as a whole has reaped a golden harvest of benefits through the advances of science and the achievements of medicine, the medical profession has fallen into either actual disrepute with the masses, or into that state which, by its irregularities and contradictions, inspires only indifference. In the hope of ascertaining whither we are drifting, and why, let us ask in candor and seriousness some pertinent questions:

First: Has the medical profession been so deeply interested in the development of its art and science that it has neglected to keep in touch with the public?

To the scientist the crass ignorance of the general public concerning the elementary facts of medicine is appalling. The most commonly used terms are misunderstood, or not understood at all, and often misinterpreted even by the so-called intelligent classes, while concerning the principles underlying medical theory and practice, the laity as a rule has remained absolutely devoid of comprehension. Even a portion of the press has arrived at that stage wherein it is not deemed necessary, in affairs medical, to insist on even that moiety of accuracy or veracity exhibited in other departments of news dissemination.

In the production of this state of affairs the medical profession has played a leading rôle. It is no exculpation to say that it has been a passive agent. Not seldom has it happened that a passive acquiescence in falsehood or ignorance has been as potent an agent for evil as active promotion could hope to be. It is not to be expected that the general public should be engrossed in the consideration of the nature and management of disease processes. In this world of manifold interests, occupations and proclivities, all are not presumed to be physicians, preachers, lawyers, mechanics, or what not. All, however, should be vitally interested in the individual — the status past, present and future—the mental and physical welfare of the individual units of society—and all have a right to learn from authoritative sources the facts concerning the subject. To king and peasant, to plutocrat and pauper, life, health and happiness are equally precious and equally desirable. There is no evidence available to prove that Nature designed or evolved mankind with certain capabilities and defects, and their incidental abnormalities for the sole delectation of even a learned medical profession. Is it not possible that in the study of disease — in the

study of function, either normal or perverted—our profession has forgotten that the individual involved is burning with desire to know the nature and pedigree of the unwelcome guest he harbors?

While therefore it is true that humanity has been the beneficiary of the discoveries and studies in the field of medicine, the benefits to be derived might easily have been enhanced and more widely distributed by a voluntary explanation to the public of their nature and purport. The ailing organism craves health, and the underfed or inquisitive mind craves information and food for thought. A profession therefore striving to the utmost of its energy to supply the first mentioned need should not be derelict in supplying the second equally important want.

Service is one essential feature of our art and science. Our vocation, if it is to be of permanence and value, must be a calling of service, and our theories and facts can find justification and ensure perpetuation, only in proportion to their capability for service. Intelligent cooperation between the medical profession and the public furnishes the sole means by which a better understanding and a perfected application of utilitarian service may be brought about between the discordant elements of society. This can be secured through the dissemination of the whole truth—the complete, detailed facts—in scientific matters. In bringing about this much desired end, the press, the platform, clubs, schools, societies and every other educational agency may be advantageously enlisted. It is to the credit of our era that at present each of these means of propagating knowledge is being employed. Nevertheless, in order to make this education available to the greatest possible number the physician must emerge still further from his shell, and devote a portion of his time to spreading the gospel of science.

Second: Has the medical profession been so engrossed in maintaining an isolated dignity that it has purposely ignored the public?

History teems with instances in which physicians have subordinated every consideration of good taste and delicacy of feeling to self-assertiveness and the maintenance of social or professional precedence. The literature of a preceding century depicts in unflattering form the arrogance, pomposity, selfishness and, not infrequently, the ignorance of the doctor of the time. True, these may be only imaginary portraits, and also is it true that the doctor may have been superior to the men of that age in all those qualities that go to make up the gentleman and benefactor. Each of us, however, has on occasion met with physicians whose first thought in every instance has been of their own dignity, of maintaining a zone of impenetrable frigidity about their persons, and of demanding a nauseating amount of subservience on the part of those with whom they came in contact, instead of by their ability and worth commanding the respect due to intellect and honesty.

However all this may be, the fact remains that a pompous dignity, a social exclusiveness, a paucity of ideas supplemented by an affluence of social or political influences—a habit of mind and procedure well described by the term fussiness—should not, in the realm of social service, longer supplant accurate knowledge, intelligent application, and whole hearted service. It is high time that the sycophants and time-servers should pass to their reward. And while we bestow a passing thought, mayhap a tear, on the astuteness and craft of the pseudo-aristocrat of science, let us remember that, undistracted by the glamor of our titles, and unmindful of our traditions, our fellowman, our brother toiler and impartial critic, waits without to weigh us in the scales of utility and service.

Third: Has the medical profession dabbled too freely in the affairs of the world, and thus, by undue familiarity, bred contempt?

To touch life, and to come in contact with men and affairs, on the greatest possible number of sides increases one's knowledge and widens to the greatest extent one's sensibilities. Intelligent observation assures the finding of "tongues in trees, books in the running brooks, sermons in stones, and good in everything." As worthy members of society it is the duty of physicians to take part in the affairs of the community, and particularly in those affairs that pertain to the general interest and welfare. There is, however, a limit to the capacity of each and every one for interest as well as for performance, and through an excess of engagements or a plethora of avocations, stagnation of thought and activity, and paralysis of usefulness may ensue. That society may be benefited by the special knowledge and capability of the earnest conscientious scientist is true, but it is also unfortunately true that these estimable faculties may, through overenthusiasm, lead the scientist far afield from his chosen sphere of activity. They may even lead —nay sometimes do lead—to unscrupulous conduct and corrupt practices. "No man can serve two masters" is a true saying, and the physician who engages in commercial or social enterprises, or enters the muddled sea of politics, must be

actuated by the purest motives and inspired with the intent of rendering beneficial service, if he hopes to preserve his self-respect and honor. Obtaining prestige or wealth by sharp commercial practices, or by political trickery, inevitably results in the neglect of professional duties. It lessens the dignity of the profession in the public mind, and leaves the impression generally, that the influences capable of the corruption of rectitude and honor in business and politics, will in time produce like results in professional conduct.

Fourth: Has the medical profession failed in its duty to the public, in that it has not insisted on a well-rounded education preliminary to medical study, and a thorough, adequate training in its art and science?

It is unnecessary to recapitulate the advantages accruing from a well-rounded education. To the medical profession they are not only apparent benefits, but essential needs as well. And yet unfortunately the haste of modern times, the eagerness for position and power, the greed for gold, and instinctive impatience with discipline and work, has impelled some to seek short routes to the professions.

The title given to the member of a profession has often been the goal sought instead of the qualifications that rightfully pertain to it. To the unthinking the label, not the goods labeled, has been the all-important thing. As a consequence the unscrupulous and ambitious have taken advantage of cheap and abbreviated courses of medical study, as offered in the past by some of the commercially conducted schools, to acquire a degree, and to enjoy the privileges incident to its possession. It is not here contended that it is essential to expend large sums of money, or to occupy decades in acquiring a working knowledge of our art, but it should be obligatory on every institution conferring degrees to give a thorough training in the elements of the various branches of the medical course, after insisting on a grade of general educational excellence commensurate with the responsibility and dignity of the medical profession. It is certainly very humiliating to meet the physician whose every attempt at speaking or writing constitutes a vicious assault on the rules of grammar and composition. It must also be disgusting to the public to meet with the physician whose sole knowledge consists of the recollection of certain pharmaceutical combinations to be administered in cases exhibiting certain aggregations of symptoms. Short cuts to knowledge (or the semblance of knowledge) like short cuts to power, usually leave in their wake a line of slain ideals, seared consciences and multitudinous imperfections. Year after year, however, standards are being improved, and educational requirements are being increased, and the stigma of illiteracy cannot longer be fastened on our profession. A wholly satisfactory system of academic and technical education has not yet been evolved, and it will for some time to come require the greatest patience and perseverance on the part of the thoughtful of the medical profession to devise an educational course that will give a valuable, comprehensive, liberal education as well as a competent technical and scientific training.

Fifth: Has the public in the process of evolving from the era of superstition, having broken with ancient faiths and traditions, merely been going through a transferal of affections?

Manifestly it would be unfair as well as incorrect, to charge humanity in its entirety with being "swayed about by every wind of doctrine," although the multiplicity of contradictory opinions extant may give color to the thought. Independence of thought, and individuality in belief and action, constitute the foundation on which the superstructure of a free people must be erected. Uniform opinions, of the ready-made variety, doled out by the privileged few to the expectant many have ever been manacles on the intelligence of man. It is not to be desired that sameness of thought, or uniformity of action, should characterize the units of the human race. To think, whether rightly or wrongly, is an inalienable right of the human mind, and neither attempted regulation nor repression can modify or stifle its activity. Expression of thought may be suppressed, but usually only with the result of stimulating its development through the incubating forces generated by persecution. When, however, the expression of thought, or its embodiment into action, having any effect on the conduct or welfare of humanity, is made, we have a right to demand both for our own and others' security and happiness that this thought be based on the widest possible collection of facts, and be evolved in conditions devoid of prejudice or any influences capable of warping the truth or tainting deductions.

Mankind as a whole desires to learn the truth, and usually to do the right. The history of the race shows it slowly groping its way from experience to experience; accumulating tendencies and acquirements; bowing the knee to idol after idol; and god after god; being acted on by a changing environment, and in turn reacting on its surroundings. Thus age follows age, exhibiting a people patronizing and protecting system after

system and method after method. With the passing of time defects are discovered and disappointments occur; hopes built on the shifting sand of incomplete knowledge and credulity die; and one by one systems or creeds are added to the waste heap of man's defunct aspirations.

And so it has come to pass that, from time to time, individuals have broken with the faiths and beliefs of their fathers in religion and politics and while slowly groping their way in science and philosophy, have without study and reflection, grasped at watch-words and psuedo-scientific ideas with the hope of finding therein a state of harmonic perfection.

Sixth: Has a tidal wave of iconoclastic skepticism swept over us, and, becoming irrational, carelessly destroyed the true with the false?

The tendency of all movements, progressive or reactionary, is toward extremes. The golden mean of moderation is most difficult to attain and to maintain. In the course of human development little by little, the boundaries of the mysterious and supernatural have been pushed back to make room for the known and natural. It is not surprising to find that as this process has gone on some truths (faint glimpses, it may be of the eternal verity), hidden by a mass of non-essential or deceptive ideas that surround them, have been crushed and trampled on for a time. That truth shall remain permanently dethroned none of us believe; but we must all agree that heedlessness and irrationalism may retard progress and postpone the recognition and acceptance of scientific conclusions.

Seventh: Has the medical profession itself been caught in the swirl of intellectual unrest and by following after strange gods bred a litter of fads and isms?

That the medical profession has had an important part in the intellectual activity of the world need not be proven here. Physicians have ever been in the thick of the fray, whether the contest has been political, social, theological, philosophical, scientific, or even physical in character, and they have rendered humanity yeoman service in all these varied fields. As has been the case with every other division of mankind they have on occasion taken untenable stands on certain questions. Whether false positions have been occupied as a result of deductions having been made from incorrect or faulty premises, or as a result of wilful attempts to mislead, is not now the question to be decided. Unprejudiced observation would tend, however, to place the major portion of the blame on inadequacy of knowledge and incapacity for correct consideration. At any rate the incongruity and conflict of medical opinion and the antagonism of medical practice, as displayed by different physicians has had much to do with creating in the public mind a feeling of distrust in the honesty or ability of the medical profession to deal capably with the health of society; and has fostered the growth of the various fads and cure-alls that prey on the credulity and ignorance of the people.

It is a good rule to "prove all things and to hold fast that which is good." Avidity for new things, for the spectacular, may be fraught with as much mischief to humanity as the ultra-conservatism that refuses to see anything serviceable in the new and recent, and that lives, recluse-like, in the past, worshipping the dry bones of systems and beliefs long since discarded and now crumbling into dust. If ever a profession or organization needed a balance wheel it is certainly the medical profession. Imbued with the best of motives—the desire to alleviate distress and to serve our fellow-man—we have swung, pendulum-like, from extreme to extreme. Polypharmacy has legitimately bred drug worship and drug debauchery, and has flooded the world with enough patent medicines to irrigate the desert places of the earth. Therapeutic nihilism has peopled the planet with a myriad of drug denouncing cults whose cardinal doctrine consists in that self-contradictory postulate—the apotheosis of mind and the negation of matter. Christian Science, mental healing, mesmerism, voodooism, witchcraft, miracle-working, osteopathy, and their litters of ill-nourished progeny, have at sometime or other pointed jubilantly to some disjointed dictum or dogma of science as justification of their existence and right to propagate.

Making full allowance for the transition period in which we find ourselves, can we conscientiously cry "unclean, unclean," to those who with emaciated knowledge and plethoric greed and corruptibility seek by chicanery to exploit the misfortunes, real or imaginary, of mankind? "Let him that is without sin cast the first stone."

Eighth: Has the medical profession forgotten, or intentionally forsaken, its high ideals, and after the manner of the charlatan sought to exploit the public, and, as is inevitable in such cases, been detected in its fault?

Much has been said and written concerning the ideals of the medical profession. In the minds of many they have become synonymous with an aversion to advertising purchasable at so much per item; with a pompous dignity that admits to comradeship none but the members of

the profession; with an imperious isolation that condemns the laity to exploitation and a condition bordering on servility. Nothing could be farther from the truth although to the casual observer, or to the unanalytic mind, the attitude and behavior of some of the profession may give warrant to the conclusion.

Were I permitted to codify the ideals of our science and art I would write them large in two postulates: The search for truth, and the service of humanity. I know of no attribute or function pertaining to the profession that may not—nay, is not—incorporated in these two aims. With this as the goal set before us what an appalling task is crowded into the brief span of life! The attainment of these ideals calls for all the energy, fortitude and persistence that man possesses. Such a consummation will in the main depend on one faculty. It is as a closed door opening only to one *master word* (to use Osler's phrase) —work.

To-day we need a Savonarola to preach the gospel of devotion and fidelity to our work. We espoused medicine in the days of our youth, in the heyday of vigor, when hope was high, when faith was strong, when our motives were pure, and when the high ideals of *Truth* and *Service* shone like searchlights in the heavens before us. In our souls we swore undying allegiance to our calling: we agreed that for us henceforth there should be but one god and his worship should be the study of science, and the consequent practice of our art. We went forth manfully to do our part. In all soberness of mind and charity of thought let us ask, have we fought a good fight, have we kept the faith? Or have we, after the manner of the unchosen, followed after strange gods, broken our espousal vows, and, in part at least, served alien mistresses? Have the fleshpots of Egypt called to us with siren voices, and lured us to a breach of trust; have we become disciples of that false system of philosophy that would apotheose the idea of something for nothing? Having voluntarily set ourselves apart for an especial purpose, have we now defiled the sanctuary and bowed the knee to the Baal of expediency and the Moloch of avarice?

If then any of these things be true, even if there be but a suspicion of truth in them, is it not worth while to pause and examine whither we are drifting — to take our bearings — and if off the track of duty, seek again the open road? But, fortunately, there is another side of the story to be told. Nowhere in the pages of the world's history is there a scroll of honor like unto that of the medical profession. Nowhere is there a story of achievement like unto that of science. Nowhere and at no time has there been a history of self-sacrifice and devotion to duty transcending that of our craft. Nowhere is there a story of unceasing toil, unthanked service, unrequited love, equalling that of the physician of high or low degree. And for this reason, doubtless, the blemishes appearing on the peerless escutcheon of our art, those faults to which I have referred, stand out in tenfold clearness.

Here then is the trilogy by means of which we must—nay, the only means by which we may — attain the heights: The search for Truth! loving, whole-hearted Service; and incessant Work.

"Go to your work and be strong, halting not in your ways,
Balking the end half won for an instant dole of praise.
Stand to your work and be wise—certain of sword and pen.
Who are neither children nor gods, but men in a world of men."

THE SECTION ON OPHTHALMOLOGY AND OTOLARYNGOLOGY OF THE INDIANA STATE MEDICAL ASSOCIATION *

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History.—At the last session of the Indiana State Medical Association forty-two members of the Association particularly interested in the eye, ear, nose and throat petitioned the House of Delegates for the privilege of forming a new section to be known as the Section on Ophthalmology and Otolaryngology of the Indiana State Medical Association. The petition was granted unanimously and we are assembled to-day for the first session of our new section.

In the name of and in the interests of a better ophthalmology and otolaryngology in the state of Indiana, I greet you on this happy and auspicious occasion.

Our Need.—We need such a section as this one because the eye, ear, nose and throat practitioners in Indiana have become very numerous. According to the directory which your chairman has compiled we have in this state 193 physicians especially interested in these specialties. Of this number 153 are members of this Association and

* Chairman's Address delivered before the Section on Ophthalmology and Otolaryngology of the Indiana State Medical Association, at Indianapolis, Oct. 10, 1912.

100 are members of the American Medical Association. But a few of these attend the meetings of this Association. Notwithstanding the last session was very largely advertised and featured, but forty-two who are thus interested could be found to affix their names to our petition to the House of Delegates, and a large number were from Indianapolis, the seat of the session.

The programs of the past sessions have evidently not appealed to our specialists. The complaint has been frequent, and well founded too, that whenever an eye, ear, nose or throat paper was announced, a general exodus from the meeting took place, leaving but a handful to listen to a paper on any one of these subjects, discouraging alike to essayist and audience left behind, until the time came that it was vowed by many that they would offer no papers on such subjects before a general meeting of the Indiana State Medical Association. Fortunately, we are now numerous enough and intelligent enough to take care of ourselves in a special section devoted to our specialties.

One of the great aims of this new section is mutual improvement and development. We need to be better practitioners along these lines, and contact with our fellows will tend to brighten our minds and sharpen our wits. We can get some of our needs by contact with the general practitioners in the general sessions of this Association, and in a measure some prominence by reading papers there. But the improvement that we most need will be secured by attendance on section meetings the like of this. The achievements of others are stimuli to still others to achieve.

Such a section is needed in this state because so few of our practitioners attend the section meetings of the American Medical Association devoted to these subjects. I find that in the last five years but thirty-one Indiana practitioners attended the meetings of the section on ophthalmology of the American Medical Association, and but sixteen attended the meetings of the section on otolaryngology of the same association. Some of the former registered in the latter section, so that all told but forty-two men have attended these meetings from Indiana. But few are members of the special societies, and fewer attend these meetings. In passing I wish to commend to your favorable consideration such special societies as the American Academy of Ophthalmology and Otolaryngology, and the American Laryngological, Rhinological and Otological Society. Attendance on the meetings of those societies is very stimulating and very valuable. The best men of the country attend them, and contact with their work and personalities will work wonders in the development of the minds brought in contact with them. Perhaps in return we may be able to help the development of the minds higher up.

The best post-graduate schools that the profession of medicine has to offer, are the medical societies all the way up from the county medical society to the highest and best of all, the American Medical Association, plus the societies devoted exclusively to our particular lines of work. Therein we can keep abreast of the times as in no other way.

To supply the need of the bulk of our practitioners who do not attend the meetings of the societies mentioned, this section is founded. So far as scientific work is concerned, it will supply but a modicum of the whole need, but it may be here that we may so stimulate each other that we will at least get a desire to do what we have not been doing hitherto, and become ambitious to participate in the meetings higher up.

Who Read.—Several months ago I was astonished to read in an editorial in *Ophthalmology* the statement that but 25 per cent. of the eye men take special journals devoted to the eye and thus presumably read and keep up with the times. In a subsequent conversation with an editor of a journal devoted to otolaryngology I was informed that but 20 per cent. of men making a specialty of the ear, nose and throat take special journals on these subjects, and thus presumably read and keep up with the times. If these allegations are true it is a most shameful state of affairs. In order to ascertain what might be the status of affairs in Indiana, your chairman prepared the directory alluded to above. Then he wrote to the editors and publishers of all the special journals published in this country asking for their lists of subscribers in Indiana. These have also been compiled, and we find that out of our 193 men interested thus, 102 take one or more special journals. Thirty take but one such journal. So it is gratifying to find that in Indiana over 50 per cent. take one or more special journals, which is just 100 per cent. better than the average the country over. We, therefore, have reason to be proud of our Indiana confrères. Perhaps the publishers are to blame because they do not oftener and more effectually solicit subscriptions for their respective journals. Nevertheless, the fact remains that 50 per cent. of our men are not reading, and by so much are incompetent to practice these specialties intelligently and well. This is a condition of affairs that ought to be remedied if ophthalmology and

otolaryngology are to be put on the highest plane possible. Personally I would like to see every eye, ear, nose and throat practitioner in Indiana thoroughly up to date. To be up to date means that we shall read in English alone, in books and journals, from 15,000 to 20,000 pages of such literature per year. Why should not this be our ambition and desire? It is a hard task that we have undertaken if we realize its immensity, but it can be accomplished by assiduously applying ourselves to the task by daily reading at least fifty pages appearing in the books and journals.

Research Work.—We ought to give more time to original research. Nothing so contributes to originality in thought as to strike out in lines not undertaken by others, or in following the work of others, endeavor to amplify that work and add new knowledge to the sum total already existing. This will lead to the writing of papers and perhaps books. The late President Harper of the University of Chicago is credited with saying that when he wished to find out all about a subject he wrote a book about it. The meaning of that to us is that by so doing he was compelled to investigate the subject from all standpoints, that it might be presented in entirety.

We need to read more, but we also need to write more. We are letting much valuable experience go to the limbo of forgetfulness which ought to come forth in printed page to help others who may need these very experiences as guides in similar experiences. This is the ethics of medical authorship that we give to others as others have given to us.

Major Studies.—We ought to take steps to see that ophthalmology and otolaryngology are made major subjects in the curricula of our medical colleges. They should be put on the same plane as surgery and medicine. General practitioners will acquire a greater respect for our work. They will become better diagnosticians of eye, ear, nose and throat diseases and they will not procrastinate in sending the specialists the cases that ought to have been sent sooner. For one I am not alarmed if the general practitioner treats the simpler diseases of these special organs of sense, and I am glad to help them with any suggestions that may be of value to them. I prefer that they rather than the optometrist should adjust glasses to patients for the correction of errors of refraction.

Mid-Year Meeting.—This section in reality should be the Indiana Society of Ophthalmology and Otolaryngology, remaining as it is the corresponding section of the Indiana State Medical Association. A mid-year meeting would not be amiss.

American Association for the Conservation of Vision.—To our favorable consideration is commended the work of the American Association for the Conservation of Vision. In this state soon will be effected an organization which will be mixed in membership, both laity and the profession of medicine taking part. The members of this section should become missionaries in their respective communities throughout the state in forming local organizations. This association is under the patronage of Mrs. Russell Sage, who insures the money so necessary for the successful outcome of its work.

The aims of this organization are as follows:

1. To collect and coordinate existing information on various matters pertaining to the conservation of vision.

2. A careful and impartial investigation of matters on which present knowledge is either incomplete or inconclusive.

3. To standardize methods and practices as far as definite knowledge can be obtained.

4. To carry on a general campaign of education in regard to the proper care and use of eyes.

5. To secure legislation tending to prevent wilful or ignorant practices which result in injury to or destruction of vision.

In this state at least this work should be so amplified that the hygiene of the ear, nose and throat should be included. We all are aware of the damage done the health of the child, both physically and mentally, by the presence of adenoid masses in the nasopharynx. We are concerned not only with the physiology of the growing child, but also with its psychology.

Evils.—It grates on the sensibilities of your chairman to hear the profession and practice of medicine called a business. Much of the commercialism that has crept into our ranks has come in through this idea that we are in a business. Hence comes that species of graft known as fee splitting. All of us have been tempted to divide fees with certain practitioners who have suggested it to us in return for the cases which they have either sent or brought to us. If the general practitioner brings us a case he is entitled to compensation for the time lost from his practice, but the one to pay him for that time is the patient and not the specialist, and the one to collect it is the general practitioner. Let the specialist make it plain to the patient that his physician is entitled to compensation for the time consumed in accompanying him to our

offices. This puts everything above board and above unjust criticism, and enhances respect for our profession.

There is a business side to the practice of medicine which is not to be ignored. But we are not in the practice of medicine primarily for the money that there may be in it, though the laborer is worthy of his hire. But we are here primarily for the relief of the suffering. We are here to be good samaritans. With that noble ideal before us the public will not let us starve. In fact, we will get along a great deal better thus than if we make the practice of medicine a business primarily.

The Future of the Section.—Let the section officers of the future apply themselves assiduously to the task of preparing good programs for the meetings of the section and the future success of the section is assured.

It will be wise to invite to our future sessions some physician from outside the state who has won distinction because of his achievements along the lines we are following. He should lecture to us, and demonstrate any new methods that he may have—clinically if possible.

A dinner should be one of the features of each annual session. Nothing so conduces to good fellowship and mutual understandings as eating together. We are not competitors. We are confrères.

The office of chairman next year should be filled by one who limits his practice exclusively to the ear, nose and throat, and every other year thereafter. The intervening years should be presided over by one who is an ophthalmologist even though he is an otolaryngologist as well.

We are now ready to proceed to the scientific program of this, the first session of our new section on Ophthalmology and Otolaryngology of the Indiana State Medical Association.

PHTHALEIN TEST FOR KIDNEY FUNCTION

A REVIEW OF SOME OF THE LITERATURE, COUPLED WITH A REPORT OF THE AUTHOR'S OWN EXPERIENCE

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As we have all learned to our sorrow, a patient may most unexpectedly become uremic and die following an operation, or a patient who has shown no symptoms of serious kidney trouble may become uremic and die most unexpectedly. Virchow was perhaps the first to call attention to the fact that the pathologic state of the kidney was relatively less important than the ability of the kidney to functionate. His observations proved that a badly diseased kidney may perform the work assigned it far better than one that seemed apparently healthy. This was not in keeping with the earlier conception of kidney pathology. When we learned that the quantity of sugar or the volume of albumin in the urine was no index to the sufficiency of the kidneys, there was an immediate demand for some test that would demonstrate this quality.

CRYOSCOPY

I will briefly outline the earlier tests devised. Cryoscopy, as the determination of the freezing point of urine was called, was based on the physical law that the freezing point of a fluid is lowered in a direct ratio to its concentration, i. e., the higher the specific gravity of the urine the greater the amount of work done by the kidney and the lower the freezing point.

ELECTRICAL CONDUCTIVITY

The electrical conductivity of the urine was advanced as a test, and was based on the known resistance of pure water to the electrical current and the direct increase of conductivity of the solution in proportion to its concentration with various salts.

These two tests were complicated affairs that never found general usage.

In an effort to simplify the test a dye has been sought that would meet certain ideals, and these ideals were that the substance must be quickly absorbed by the blood and rapidly excreted by the kidneys. It must be inert in its effect on the general system, in its effect on the blood and in its effect on the kidney. It must be excreted without undergoing any chemical change. The rate of excretion must be unaffected by the quantity of urine excreted, and the average percentage of excretion in healthy individuals must be sufficiently stable to permit of a well-defined standard of value.

METHYLENE-BLUE

In 1897 methylene-blue was introduced as such an agent. In health it appears as a chromogen in about fifteen minutes, and is easily demonstrated by boiling with a little acetic acid. It appears as methylene-blue in about half an hour and continues for from two to six days in health. The determination was made by noting the time of appearance, the time of maximum intensity and time required for total elimination. In disease the time of appearance and maximum intensity was delayed and the time of total elimination prolonged. However, Bard and Bonnet

found that in acute and chronic parenchymatous nephritis the excretion was normal and at times even accelerated. This dye fails of the ideal, in that time of total elimination is too long, it undergoes chemical change in the system and is not constant in its qualities. The results obtained are very rough and unreliable.

INDIGO-CARMIN

Indigo-carmin has been used for this test, but as only about 25 per cent. of the total drug is eliminated and the fate of the remainder is unknown, it does not meet the requirements of a workable test.

ROSANILIN

Rosanilin is another dye-stuff that gave greater promise in this relation. It is injected subcutaneously, appears in the urine in half an hour and reaches its maximum intensity during the second, and at times the third hour. While total elimination is over in twenty-four hours, 65 to 95 per cent. of the dye is eliminated. This drug comes nearer the ideal in some particulars, but was found unreliable in diseased conditions.

PHLORIDZIN

The phloridzin test consists in the administration of a substance which causes an artificial glycosuria. The presence of a diseased condition in one or both kidneys causes a proportionate decrease in the quantity of sugar excreted, together with a delay in the time of appearance. Leopold Gasper of Berlin has been the chief champion of this test. He admits, however, that the total quantity of sugar excreted by both kidneys will vary greatly even in health, so that total function cannot be estimated. However, the comparative functional value of the two kidneys is obtained, which is of great value in kidney surgery. That on certain occasions no sugar has appeared after the administration of phloridzin to healthy persons has cast doubt on the reliability of all its findings. While this test has had a greater vogue it falls short of being a satisfactory test, and owes its popularity to its ability to show comparative values.

PHTHALEIN TEST

Geraghty and Rowntree have brought forward and tested very thoroughly Remsen's phenolsulphonephthalein. The substance meets all the requirements of the ideal function test, i. e., it is non-irritating in application, it can be used in small dosage, it has no action whatever on the system, in whole or in part, while being absorbed and eliminated; it appears quickly in the urine; it is not excreted by any other organ; it is not changed chemically in the body; the rate of elimination is not influenced by the quantity of urine excreted. It is practically all eliminated in health within two hours when administered intramuscularly or one hour when given intravenously.

To review briefly the experimental work. The test was run on several hundred healthy persons to obtain data for comparison in pathologic states. In health it was found that the dye appeared in the urine in from five to eleven minutes; that the first hour's elimination averaged 50 per cent., while the total for two hours varied from 60 to 85 per cent., only a trace of phthalein being found after the two-hour period. It was further demonstrated that the kidneys excreted the dye in the same percentage if the urine was scanty as when the flow was free. This point was illustrated by one of my own cases. The usual diuretics employed in treatment have no effect on the rate of excretion. High, low or moderate blood-pressure does not influence the output of phthalein. Moderate or severe grades of anemia not associated with kidney lesions failed to influence the excretion.

PHTHALEIN TEST IN GENERAL PRACTICE

A point of great interest to the man in general practice is that the phthalein will accurately foretell uremic conditions, even in the absence of clinical, chemical or microscopic symptoms. Heretofore the practitioner has never relied on functional tests in treating nephritis, on account of the unreliability of such agents as methylene-blue, indigo-carmin, rosanilin, etc. My own series of cases has not included nephritis other than from a surgical standpoint. I will summarize the conclusions of Rowntree and Geraghty along this line.

"Twenty-five cases of the so-called parenchymatous nephritis were studied. These cases represented different grades of severity and the duration varied from five weeks to seven years. In mild cases of short duration showing only slight edema with albumin and casts but with normal urine output, the phthalein output was normal. In cases of longer standing or ordinary severity, the time of appearance of phthalein is delayed and the amount excreted is definitely below normal. Wherever the disease has been of sufficient severity to cause marked tissue changes the output of the dye is markedly decreased or absent. In this type of nephritis, as well as in the interstitial type, the failure of excretion or the excretion of a mere trace is always followed in a short time by death from renal failure. When there is a marked decrease in the phthalein output, marked renal changes are present, and when only excreted in traces or not at all, a grave

prognosis should be given, even though no signs of uremia exist.

"In chronic interstitial nephritis, many times previous to the administration of the phthalein test, no accurate idea of the degree of involvement of the renal function could be ascertained, even after the most careful clinical study. The phthalein test has proved itself of immense value in revealing the degree of destruction of the renal substance, and has demonstrated itself to be of extreme importance from the standpoint of both diagnosis and prognosis."

These investigators encountered cases of particular interest on account of the fact that the urinary output, the urea, the total solids and the total nitrogen were normal and casts were absent, yet the total failure of phthalein elimination was followed shortly by deep coma and death with symptoms of marked uremia, the autopsy showing atrophy of the kidneys, together with a severe grade of interstitial nephritis.

While the classical symptoms of high blood-pressure, marked changes in the eye-grounds, choked disk, tortuous vessels, hemorrhages, etc., together with urinary changes associated with nephritis, point to profound changes in the kidney structure, yet even in these cases the phthalein test will give valuable information concerning the kidney's ability to continue its work, while it is of even greater value in those cases of kidney inflammation where the typical symptoms are lacking and the diagnostician is in doubt.

Keys, Jr., has published a series of cases in which he used the intravenous method of administering the phthalein. His conclusions coincided with those of Rowntree and Geraghty, in that he found no parallelism existing between the urea percentage and the phthalein output, but found the phthalein percentage a correct indicator of the kidney function. He found that the urea may be normal in quantity when the function is practically *nil,* or urea elimination very small when the function of the kidney is normal.

Louis Schmidt, in his contribution to this subject, insists that we must not forget in our enthusiasm for one test, that the most thorough clinical examination, urinary examination and all other methods of examination must be used in considering each case. He feels that those of us who are trying to do thorough work in our respective lines must not neglect to give our patients the full advantage of this test by including it in our routine examination of all patients, and especially those subjected to surgical procedures. He agrees with Hugh Young that a low elimination by first test need not mean a hopeless prognosis for the patient, but that great recuperative power may often be found and developed in many of these cases by appropriate treatment. This treatment consists essentially of free drainage in cases of urinary obstruction and forced administration of large quantities of water with repeated tests to note the increase in function, its stability or its continued failure. In this manner an operation which must necessarily be fatal at the time, may be deferred until the patient is in better condition, or refused if the kidney changes are such as to preclude the possibility of a favorable issue.

The following selected reports taken from my case histories will serve to illustrate my experience with the phthalein test in surgical cases:

Case 1.—First seen April 20, 1912, aged 62, chronic alcoholic, complained of kidney (?) trouble, frequency and urgency of urination day and night, immoderate thirst and the loss of 80 pounds of weight. Condition due to enlargement of the prostate. Patient still weighed 250 pounds and was in fair general physical condition. Twenty-four hours' urine as measured by the patient was 6,000 c.c. His residual urine amounted to 18 ounces, the specific gravity being 1.005. No sugar and only a small amount of albumin was found. Urea was 1 per cent. Many epithelial casts microscopically. Patient was sent to St. Elizabeth Hospital, May 7, suffering from such early uremic symptoms as chills and fever, cramps in the legs, troubled vision, etc. On cystoscopy I found an enlarged prostate forming a bar across the vesical neck. There was no bulging by rectum. Function test—Phthalein 6 mg. hypodermically. No trace in thirty minutes. Urine was now collected for one hour and contained 22 per cent. of phthalein, while the second hour showed only a trace of the dye. Patient was catheterized regularly four times a day, put on forced drinking and six days later the test for function was run again. The phthalein failed to appear in thirty minutes and at the end of two hours only a trace of the phthalein was found in the urine collected. A third test was run eight days later and the two hours' urine yielded barely a trace of the dye.

Although the patient had been anxious all this time for an operation it was refused him on the repeated negative findings. However, every effort was made to increase the functional capacity of the kidneys, but to no purpose and four weeks after the last test he suddenly went into uremic coma and died in twenty-four hours. Autopsy was not obtained. This case is interesting in that, leaving the functional test out of consideration, the examination of this patient would have justified the conclusion that he was a fair surgical risk. But the failure of his kidneys to eliminate the phthalein pointed to an early fatal uremic condition which was borne out by the subsequent history of the case.

Case 2.—Patient referred by Dr. A. C. Arnett, aged 63. Was taken with sudden suppression of urine at home. I obtained 1,000 c.c. by catheter. Sent patient to St. Elizabeth Hospital putting him on regular catheterization. I cystoscoped this patient and found an enlarged hard prostate encroaching into the bladder and a small calculous in the trigone. Six mg. of phthalein was injected intramuscularly to determine the renal function which appeared in the urine in ten minutes. In the first hour's urine 43 per cent. of phthalein was collected and 20 per cent. was found in the second hour's urine. A total of 63 per cent. for the two hours.

In the urine no albumin or sugar and microscopically no signs of renal inflammation were found. This patient was also a chronic alcoholic. Prostatectomy was advised but refused. This case would have experienced no functional incapacity of the kidneys.

Case 3.—Aged 62 years. Sent to St. Elizabeth Hospital. Suffers from irregular attacks of partial and complete urinary obstruction. Had 20 ounces of residual urine. By cystoscopy I found a bulging of the prostate into the vesical cavity which formed a median bar. The bladder wall contained a number of very deep diverticulæ. The prostatic growth about the vesical neck was irregular and nodular, but not large. The vesical outlet was contracted. There were multiple deep diverticula at the site of each ureteral os. Mucosa was injected near a small pedunculated growth to the lower left of the vesical outlet. The urine was clear, light straw color, sp. gr. 1.008, reaction neutral, albumin and sugar none. Twenty-four hour quantity was not obtained. Function test—phthalein six mg. on August 13 appeared in 17 minutes in the urine. The first hour's urine yielded 27 per cent., and the second hour's urine contained 20 per cent., making a total output of 47 per cent. for the two hours. I operated on this patient August 14, doing a suprapubic cystotomy for the pedunculated growth and the perineal route for the prostate. Recovery was uneventful. The kidneys showing no tendency to fail.

Case 4.—Aged 42. A perineal urinary fistula. Case referred by Dr. Ruschli. Patient was a chronic alcoholic with history of urinary obstruction due to stricture for at least four years past. Urine examination revealed no sugar and no albumin. Sp. gr. 1.010. Six mg. of phthalein was given as a function test. Dye appeared in the urine in ten minutes. First hour 100 c.c. of urine was collected which yielded 24 per cent. of phthalein. During the second hour 125 c.c. of urine collected contained 20 per cent. of the dye. Total elimination for the two hours 44 per cent. I operated under local anesthesia. Recovery uneventful with no suspicion of kidney failure.

Case 5.—Dr. Wetherill's patient. Aged 73 years. Case of senile gangrene of the left toes. Patient had marked arteriosclerosis. No uremic symptoms. No albumin or sugar. Hyaline casts found microscopically. Sp. gr. was 1.011 with 1.4 per cent. of urea. Six mg. of phthalein was administered intramuscularly and appeared in the urine in 15 minutes. First hour 275 c.c. of urine was collected with a sp. gr. of 1.001 and contained 43 per cent. of phthalein; 350 c.c. of urine collected during the second hour yielded 16 per cent. total phthalein 59 per cent. Leg was amputated by Dr. Wetherill at the juncture of the middle and lower thirds of the thigh with uneventful recovery.

Case 6.—Female, white, aged 39. Dr. A. C. Arnett's patient. Operation for removal of tubes and uterus. Phthalein administered intramuscularly to test renal function. Six mg. injected. Dye appeared in ten minutes. The urine was now collected for one hour; 200 c.c. was obtained which contained 49 per cent. of phthalein; 250 c.c. of urine collected during the second hour contained 20 per cent., making a total elimination 69 per cent. Recovery was uneventful.

Case 7.—Male, aged 47 years. Dr. A. C. Arnett's case. Acute recurrent appendicitis. Patient had been on water starvation for one week. No water was given before or during the test. Six mg. of phthalein was administered. During the first hour only 25 c.c. of urine was collected, which yielded 37 per cent. of phthalein. The second hour's collection of urine amounted to only 25 c.c. and contained 15 per cent. of phthalein, making a total of 52 per cent. for the two hours. The time of appearance was not noted in this case on account of the small amount of urine being secreted. After a few days with the ice bag the fever subsided and the test was run again with a liberal allowance of water. During the first hour I collected 275 c.c. of urine from which I obtained 37 per cent. of dye, while 60 c.c. of urine collected during the second yielded only 10 per cent. which was 5 per cent. lower with a liberal allowance of water than on the water starvation. This patient was operated the following day by Dr. Arnett and the recovery was uneventful as far as the kidneys were concerned.

Case 8.—The test was run on a female child, aged 12 years. This was also Dr. Arnett's patient and was to be operated on for the removal of a small piece of glass lost in the plantar surface of the foot. During the first hour 50 c.c. of urine yielded 37 per cent. of phthalein and the second hour's urine amounting to 35 c.c. contained 28 per cent. A total of 65 per cent. Recovery uneventful.

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THE DIAGNOSIS OF "INDIGESTION" *

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It has been only a few years since a patient suffering with acute, severe abdominal pain was treated as a medical patient until abdominal rigidity, severe sepsis, or the appearance of Hippocratic facies compelled surgical intervention. Surgery was considered as the last resort, and only too frequently the abnormal process had advanced so far that even operative measures were futile.

Recently we have begun to recognize a group of abdominal symptoms, less severe than the above, but pointing with as much urgency toward an operative investigation.

There are a group of common symptoms, such as headache, backache, "bladder trouble" and "indigestion," that may be caused by a host of disturbances in various and remote parts of the body. These localizing pains or discomforts represent the points at which a disturbance penetrates the zone of consciousness. This is especially true in regard to the stomach, in which disturbances such as indigestion and dyspepsia occur as the conscious indication of numerous abnormalities in various regions of the body.

The stomach is extremely sensitive to a host of disturbances both mental and physical. It

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may be considered as a point of least resistance, its motor and secretory mechanism being affected by pathological processes both within and without this organ and giving rise to indigestion, the chief or presenting symptom of these various abnormalities. In other words, we must recognize that indigestion, like headache, is simply Nature's cry for help, and as we have long since ceased to consider headache as due solely to a disease of the head, so we must likewise cease to consider stomach discomfort and pain as due solely to disease of the stomach, and we must search widely for its cause.

I have in my own mind reached some very positive conclusions in regard to the following points: First. indigestion, especially when chronic. is indicative of some grave abnormality. Second. that this abnormality should be sought for until found, and if it cannot be determined to be a condition definitely amenable to medical treatment, surgical investigation should be at least considered. Third, that a very small percentage of cases of chronic indigestion are due to pathological conditions in the stomach itself. and when these are encountered. surgery offers the only relief. Fourth, that the medical treatment of the indigestion itself is often not only useless, but may be positively harmful, by wasting valuable time and allowing the primary condition to progress undiagnosed.

The diagnosis of indigestion is entirely too broad a subject to consider in all its details here, I simply wish to emphasize some of the most important features. To begin with, every case of chronic indigestion should be subjected to a most careful history-taking and an exhaustive physical examination. With this full collection of both subjective and objective data, the primary condition will be found to conform to one of the three following groups:

First, those conditions causing indigestion that are of distinct medical significance, as the following: Chronic gastritis, which may be secondary to faulty diet, lack of exercise, constipation, free indulgence in alcohol and tobacco, intestinal parasites, gout, chronic lead-poisoning, chronic nephritis, arterial sclerosis and venous congestion of the gastric mucosa, secondary to cardiac insufficiency and portal obstruction. Severe anemias and the leukemias sooner or later show a marked degree of gastric distress. There is probably no symptom more constantly found in early pulmonary tuberculosis than chronic indigestion.

Second, the neurotic group, or the various forms of nervous dyspepsia. These conditions are decreasing in a direct ratio to the diligence of our search for an organic basis. I feel that to make a diagnosis of gastric neurosis is a grave responsibility; that it should not be made until all possible organic disturbances have been positively eliminated and then only in a patient who has been under a severe mental strain or worry, or who is a well marked psychoneurotic. Gastroptosis and atonic dilatation of the stomach are definite morbid entities, but they are so closely related to an unstable nervous system and to congenital defects both mental and physical that one is inclined to attribute the indigestion resulting from these conditions as due to a neurotic rather than to gross pathologic conditions. This view is further substantiated by the universal failure of obtaining relief from the discomfort after a restoration of the anatomy of the parts by surgery.

Third, those cases in which a chronic indigestion is the chief, or perhaps the only complaint and in which the primary trouble is one of the following conditions: Chronic gastric and duodenal ulcer, gastric carcinoma, "latent" gallstones, chronic pancreatitis and chronic appendicitis.

Those conditions mentioned in the first group. as causing indigestion, can as a rule be diagnosed with comparatively little difficulty after one has thoroughly studied the case.

The second, or neurotic group offers great difficulty because many of these patients have as a basis for their neurosis, a definite organic intra-abdominal lesion. There are three diagnostic points that I believe are of great value in differentiating between a neurotic indigestion and one due to intra-abdominal lesions.

The first is one that we all recognize, namely. a palpable mass; and too often this is not only a diagnostic sign, but also one pointing towards a hopeless prognosis.

Second, the repeated finding of a food residue in the stomach after eight or ten hours. It has been demonstrated both clinically and in the physiological laboratory that the pylorus is opened by a stimulus on the stomach side and closed by a stimulus on the duodenal or distal side. and that this closing stimulus may arise not only from the duodenum, but also from its accessory pouches, the bile and pancreatic ducts, and the small and large intestine as far as the splenic flexure. If, therefore, after several tests we find a food residue after eight or ten hours, we can feel with a fair degree of certainty that the cause of the indigestion lies in some portion of the primitive gut.

Third, if one goes over the histories of cases of chronic indigestion, it will be found that those due to organic intra-abdominal trouble show a tendency for the indigestion to occur in the form of attacks, with a quiescent period between; while in a purely nervous dyspepsia the discomfort is nearly continuous. The exception to this is gastric carcinoma in which the "indigestion" is seldom interrupted.

The diagnosis of the third group of conditions, those latent intra-abdominal lesions that cause indigestion, may be summarized as follows:

CHRONIC GASTRIC AND DUODENAL ULCER

These conditions have been brought forcibly to our attention during the past few years, due to the work of Moynihan and William Mayo. These workers have established a fairly definite symptom complex on which an early diagnosis can be made. The constant regularity of the pain and gastric distress, appearing always at a definite interval after taking food (within one to two hours in the case of gastric and within one and one-half to five hours in the case of duodenal ulcer) the relief from the pain after the ingestion of alkalies or food, the tendency for the symptoms to appear in the form of attacks lasting two to four weeks with a quiescent period between, and the absence of other marked symptoms should make one feel that the most probable underlying pathological condition is either a gastric or duodenal ulcer. The finding of microscopic blood in the stools or stomach contents, or the finding of occult blood in the stools are further evidence of value. To wait for the appearance of complications, such as gross duodenal or gastric hemorrhage, the signs of cicatricial stenosis of the pylorus, or deformation of the stomach, in order to make a diagnosis, is to subject the patient to a long period of distress and danger. As Moynihan[1] aptly remarks, "Surely it is almost as reasonable to wait for hemorrhage before venturing to diagnose a duodenal ulcer, as to include a ruptured perineum among the signs of pregnancy." The following case illustrates the almost irreparable damage that may result from an unrecognized pyloric ulcer.

Miss E., age 27; for two years suffered with indigestion, pain, burning and sour eructations, reaching their maximum about one-half hour after eating. During the past two months vomiting of food after almost every meal. No vomiting of blood. Marked emaciation. Stomach found to contain a residue, after thirty-six hours. Marked dilatation was present, the greater curvature reaching to the symphysis pubis. The condition was one of definite pyloric stenosis. On opening the abdomen a marked indurated ulcer of the pylorus adherent to the liver and gallbladder was found. A posterior gastro-enterotomy was performed. Marked improvement followed, but it was not as satisfactory as should have been obtained if the operation had been done before the extensive inflammatory changes had taken place.

1. Moynihan: Brit. Med. Jour., Nov. 28, 1908.

CARCINOMA OF THE STOMACH

The hopeless methods of dealing with cancer of the stomach according to present procedures is only too well recognized by all of us. The operative technic of dealing with the local growth has been developed almost to perfection, but our diagnostic methods of detecting the growth during its operable stage are very inadequate. In fact, in order to cure a case of gastric carcinoma the operation must be performed before the condition has progressed to the stage in which a positive diagnosis is possible. In other words, the indication for operation must be based on probabilities alone. If we defer the operation until the diagnosis is made positive by the presence of bloody vomit, tumor and cachexia, the time for performing a cure will surely have passed. The exploration must be made during the early period of mild gastric distress. The following example is a case in point:

Mr. L., age 50. Always well until the last year and a half when he began to suffer with indigestion. This gradually became worse, but was not accompanied by either vomiting or pain. He was treated during this period for chronic indigestion. During the past two months the patient noticed a mass in the epigastric and right hypochondriac region. An exploratory laparotomy, September, 1911, revealed an extensive carcinoma on the greater curvature of the stomach near to, but not involving, the pylorus with secondary deposits in the liver. In this case, indigestion was the only evidence of serious trouble until the appearance of the tumors.

Clinically, carcinoma of the stomach may be divided into two main groups: First, those occurring on an apparently healthy gastric mucosa. Second, those arising at the site of chronic ulcer.

The first group offers by far the greater difficulty, but the following symptoms are very suggestive of beginning cancer. An individual, especially a male, who without any change in his diet or mode of life, gradually developes a chronic indigestion, loses his relish for food, especially meat, and shows a lack of his usual energy and strength, in whom no organic disturbance can be found to definitely account for

his indigestion, should be considered a suspicious victim of gastric carcinoma.

The second group offers less difficulty. The history of attacks of gastric distress characteristic of chronic gastric ulcer which continue until after the thirty-fifth year of life, is in itself suggestive. With the onset of the malignancy, the attacks become more annoying, more frequent and a most characteristic sign appears, the failure for the pain to be relieved by the taking of starchy foods or alkalies as was customary during the ulcer stage. Again, during the ulcer stage the appetite is generally good and food is relished in spite of pain. But with the beginning of malignancy this is replaced by more or less aversion to food.

Of course, we possess many tests for gastric carcinoma, none of which, however, are positive, but which may add their increment of evidence one way or the other. These are gastric analysis, the fermentation tests, motility test and the determination of the size and shape of the organ by means of the bismuth skiagraph. Another ingenious and apparently trustworthy test for pyloric cancer is described by Holzknecht[2] of the University of Vienna. In brief, if he can establish the following three points: a bismuth residue in the stomach after six hours; a normal stomach shadow on the fluoroscopic screen and an absence of hydrochloric acid, he makes a positive diagnosis of early pyloric carcinoma which has been corroborated repeatedly by operation. It is the rapidly growing opinion that the very suspicion of gastric carcinoma warrants an early exploration if we intend to save this class of cases.

Speaking of exploratory incision Moynihan[3] says: "If the patients, who are suffering from this most insidious and most irreparable disease, are to have any better prospect of relief or of cure, the use of exploratory operation must be greatly increased." Again, Bloodgood[4] writes in a recent article: "I am sure that less harm will be done by the surgeon who with good technic may open the abdomen for exploration a little too frequently, than by the physician who through any means delays operative intervention in ulcer or cancer."

GALL-STONES

Indigestion is a very common accompaniment of the so-called "latent" gall-stones. As an example the following case may be cited:

Mrs. F., age 35. Indigestion for three years which is gradually growing worse. Gradual loss of weight due to restricted diet. History of a moderate degree of epigastric pain following indiscretion of diet; slightly chilly feeling occasionally after meals; physical findings negative except anemia and emaciation. An exploratory laparotomy based on the history alone was performed November, 1910. Very firm adhesions between the colon and gall-bladder were present and a single large stone was found impacted in the fundus of the gall-bladder. The removal of the stone and drainage of the gall-bladder resulted in an immediate and permanent disappearance of the digestive disturbances.

Gall-stones that do not produce jaundice or biliary colic, the so-called "latent" stones, are frequent cause of chronic indigestion. With the entire absence of pain or tenderness near the right costal margin, the diagnosis can only be made problematically by the exclusion of other causes of indigestion. Pain in the back, under either shoulder-blade, slight chilly sensation or the feeling of goose-flesh during the height of indigestion are very suggestive of stones. The attacks of pain are very similar to those of gastric ulcer, but as a rule are less severe; moreover, the ulcer attacks are brought on by all kinds of food, while gall-stone indigestion seems to be subject to only certain kinds of food peculiar to each individual. The slightest pain or tenderness in the right costal border is a sign of great importance. Frequently it will be impossible to differentiate between gall-stones and ulcer without a direct examination of the parts.

Chronic pancreatitis is probably a more frequent cause of chronic gastric distress than we generally recognize. As far as we know, it is probably always secondary to gall-bladder infection and is relieved by drainage of the bile passages.

CHRONIC APPENDICITIS

Chronic, or the so-called "latent" appendicitis is a much more common cause of indigestion than is generally supposed. As mentioned above irritation in any part of the intestinal tract causes a spasm of the pylorus and an interference with the motility of the stomach. Many clinical observations seem to demonstrate that irritation arising in the gall-bladder and appendix reflexly lead to motor disturbances in the stomach. The following is a summary of an illustrative case:

Miss M., age 26. School teacher. For the past four years has suffered with indigestion and constipation. Has had several attacks of epigastric pain not accompanied by vomiting and frequent gaseous distentions of the bowels. She has been weak and nervous. Has noticed mucus in stools during the past few months. Has been treated for nervousness due to overwork. On

2. Holzknecht: Arch. Roentg. Ray, November, 1911.
3. Moynihan: Brit. Med. Jour., April 3, 1909.
4. Bloodgood: Jour. Am. Med. Assn., March 23, 1912.

November 18, 1911, a chronically inflamed appendix was removed, resulting in the disappearance of the indigestion and gastric attacks, which greatly relieved the nervous condition.

Chronic indigestion following well defined attacks of appendicitis should offer no diagnostic difficulty, but many of these cases give no such history of previous acute attacks. Christopher Graham[5] reports 115 such cases from the Mayo clinic. The chief diagnostic points are as follows: Gastric disturbance not severe, but fairly constant periodical attacks. Exacerbation of gastric distress frequently follows exertion. Weakness and nervousness are the rule. Gaseous distension of the intestines and constipation are almost constant, often continuing between attacks of indigestion. When present, pain or tenderness in the right iliac fossa is a very important sign. According to Dieulafoy[6] the appearance of mucus in the stools is a very constant occurrence in the "dyspeptic appendicitis." Of course, none of the above mentioned symptoms are positively diagnostic. Here, again, the exploration must be made on the probable diagnosis only.

In conclusion, I wish to emphasize the fact that chronic indigestion is the result of a serious underlying condition. That this underlying condition should in all cases be determined, for be it subject to either medical or surgical therapeutics, justice cannot be done the patient without first determining the underlying abnormality. If the cause cannot be definitely ascertained as being one amenable to medical treatment, the best interests of the patient lie in a timely exploratory incision.

DISCUSSION

Dr. Edwin Walker, Evansville: Mr. President and Members of the Indiana State Medical Association: Dr. Reed's paper is very timely, and I must congratulate him on the way he has handled his subject. The trouble in any question as large as this is that it is difficult in a short paper to give the essential points; but the doctor has done that, and I hope every member of this society will read this paper carefully after he goes home.

The difficulty in diagnosing gastric diseases has been the prolix classification we have had for so long. We are lost in a maze of information, and we can hardly extract ourselves. The classification of Cohnheim, which is very much like that the doctor has given, has helped me very much in these cases. He divides the disease into (1) the organic diseases of the stomach itself, gastritis, ulcer and cancer being the chief of these; (2) those gastric disturbances depending on constitutional diseases of which the stomach manifestations are but a local expression of the general disease; and (3) those gastric disturbances symptomatic of some other disease. In studying these cases, too, I have been very much helped by Dr. Seigman's teachings of many years ago.

In the clinical diagnosis the thing to remember is that we always have three diagnoses to make. The first is, what is the symptom—not in a general way, but accurately—what is the symptom; then the next is, where is the lesion that would cause these symptoms; and third, what is the lesion that causes them? You can illustrate this probably easier in nervous diseases than in the one we are talking about.

In studying these stomach cases, so frequently the observer will pass over the symptoms in a general way and not definitely determine what they are. In the organic diseases, with a little care, we should be able to recognize most of them. The symptoms there are more particularly referable to the stomach itself. They are influenced somewhat by the taking of food. Pressure after meals depends mostly on the character of food taken, while in functional disease it is almost universal, regardless of the kind of food taken. Then if there is vomiting, it is of a definite character, and we are apt to find stagnation after eight or nine hours. In regard to stagnation, I mean of course where a residue of food remains after eight or ten hours in the stomach. In my own observation I have never found a case in which that was present that I did not have an organic disease of the pylorus. It may be true in physiology that a stimulant from the stomach opens the pylorus and from the other side closes it, and possibly it will not produce stagnation, but I have never yet found one case. Whenever I find stagnation I feel reasonably sure that I have an organic change, and when you have an organic lesion the sooner you get after it the better.

In connection with the constitutional diseases, tuberculosis stands first, and in these cases of chronic indigestion a large proportion are tubercular. Then the others, the toxic cases, like those from alcohol, tobacco or coffee, have also to be considered.

The variety of gastric symptoms produced by some other disease is a very interesting and broad field. The doctor has touched on the subject of gall-stones. With reasonable care we ought to be able in many instances to diagnose biliary diseases, even in the absence of colics, by the stomach symptoms. One point that might be emphasized is the fact that pain and fever in biliary diseases and gall-stones are always irregular as to time. A patient suffering from gall-stones will tell you that he had pains at all hours of day and night, while in organic diseases of the stomach there is a certain relation of pain to the taking of meals.

5. Graham: Jour. Am. Med. Assn., March 19, 1910.
6. Dieulafoy: Text-Book of Medicine.

This is going over the subject rather rapidly, but I find that the best thing is systematic study of these cases. In fact, indigestion, as well as other vague symptomatic diagnoses, have got to go on the brush heap. The time of mushroom specialism—six weeks' course and then go home and not study your cases very much afterward—has gone by, and we have to replace this symptomatic diagnosis with distinct, definite pathological diagnosis. When we do that we will get along further.

Dr. A. C. Kimberlin, Indianapolis: Mr. President: The consideration of a subject such as has been presented by Dr. Reed this morning from a scientific standpoint, is very difficult to attempt to discuss from a practical standpoint. People give us a great many theories and offer us a great many rules more or less accepted as sure signs of a certain kind of pathology. Surely nothing could be much more misleading than to take the chemical or clinical diagnosis for a pathological diagnosis. The one great difficulty in making a correct diagnosis of indigestion, and the plea made here by the surgeons and very properly offered by a surgical man and treated from a surgical point of view, is in many instances the great difficulty that we have—in holding the patient to specific symptoms as well as confining ourselves to a correct observation of certain definite physical signs.

Again, too, we are rather prone to believe too much of what we read or what we hear. I thought when Dr. Reed was presenting his paper this morning, "That sounds to me a good deal like the German customs officers inspecting your baggage." I remember it was with some fear and trembling that I sought to get across the line, and I sought a little comfort from a hotel man—who was about the only one I could talk to—as to what was the thing to do. He said, "Don't worry; they will inspect the man and not the baggage." And that is a pretty good rule to go by when you are trying to diagnose indigestion. Take care of the patient first. A man in general practice attempting to diagnose indigestion immediately takes in the broad scope, the entire field and range, from the simplest pyorrhea up to the most malignant ulcer.

And neurosis—I remember not long ago when we were taught functional neuroses and their importance, and not a word said about the question of indigestion, as Dr. McCaskey will tell us later on.

Dr. Reed mentioned tuberculosis. It is appalling to note the number of poor victims who are being treated for indigestion of various types while they are constantly growing worse under the influence of tuberculous foci in the apex of one lung. Dr. Reed did not make it strong enough. Tuberculosis is so frequently taken as a symptom of indigestion that no man can take the stomach alone and feel he has given the patient what is due him in the matter of careful consideration. We know full well, too, that when we come to the surgical side of it, that the abdominal reflexes that are given from adhesions, chronic appendicitis, gall-bladder, etc., are misleading.

Then there is the plea of the surgeons that we as medical men make not only better but earlier diagnosis. They are filled with confidence—very properly—and as a result many a good man in medicine is more and more intimidated because the surgeon's diagnosis is so positive and so clear, while the medical man, viewing the conditions in their wide range, cannot possibly make such a diagnosis.

It is impossible to present a subject of this kind in a few minutes.

Dr. F. B. Wynn, Indianapolis: Mr. President and Gentlemen of the Association: I quite agree with the last remark of the speaker who preceded me—that to consider this matter as a discussant in five minutes in a manner satisfactory to you or to the discussant, is impossible, but it is up to us to give a rapid-fire consideration to the question.

In the first place, speaking of what seems to me the dominant note of the paper—that there should be in cases having indigestion, gastric or intestinal, a thoroughness of investigation—diagnostic investigation. I think that one of the wrongs of this modern day, in practice and diagnosis, is that practitioners have been too frequently prone to center their attention on the symptoms. Two or three years ago Morris and Cabot emphasized in public addresses the fact that only a small percentage of patients suffering with gastric symptoms had real gastric disease. I cannot recall the proportion, but it was small, and as I see more and more of these cases of indigestion I am impressed more and more with the truth of the fact that it is almost rarely that you find a case presenting indigestion symptoms in which the real trouble is in the stomach itself.

So the necessity of studying the whole man. That note was sounded at the meeting of the American Medical Association in 1906, at Portland, when the whole profession protested against the centering on this organ or that organ, and the note to-day is that we should study the whole man—the whole organism.

Tuberculosis has been cited as a cause of indigestion. Take another common cause—the kidneys. I have seen at least a half-dozen cases—one a post-mortem, where death was not caused by carcinoma of the stomach, but by a nephritic condition, and I have known men who have been so centered on stomach symptoms as to fail to see symptoms of kidney trouble. Chronic toxic symptoms can cause stomach trouble. And so the necessity of our studying the whole man—all his organs.

I do not just like the classification of the essayist. He makes a medical group, a neurotic group and a chronic group. I like much better the Cohnheim classification, which divides them into those with organic changes of the stomach, and then the symptomatic group. This idea of classification, as Dr. Reed has it, makes a medical group and a surgical group, and that tends to the very thing we do not want—getting the surgical men on one side and the medical on the other. That is not right; we want to get closer together. But I want to say of my surgical friends, that the trouble with the surgeon is that he is apt to be so centered on the surgical diagnosis that he does not see the rest of the body; he does not examine the lungs or the remote parts of the body other than the part he is studying. I go through the surgical wards of our hospitals every now and then, and I frequently see a case that is an interesting medical case, but the surgeon has not said a word about it.

The necessity is for closer union between the medical men and the surgeons, between the internists and the specialists in surgery.

Dr. A. B. Graham, Indianapolis: Mr. President, Ladies and Gentlemen: I have had the pleasure of reading Dr. Reed's paper very carefully, and beg to state that my views are in accord with those presented by him this morning. It was a physician who said that he who enters the practice of medicine, if he desire to advance, must agree to battle for but one object — the benefit of mankind; he must make medicine his mistress in truth and obey her; he must not overlook anything which might help solve the dark problem. I believe this physician had in mind indigestion when he spoke of a dark problem.

In indigestion we have a symptom only—not a disease. It becomes necessary for us when considering this symptom to determine if possible whether it is a primary or a secondary condition. It becomes necessary for us to determine if possible whether it is organic or anatomical, and when it is purely functional or neurotic in character. Many times we make a diagnosis of a very simple symptom, and fail in finding the etiologic factor that is producing that symptom. We must keep in mind that indigestion may be the expression of auto-intoxication; it may be an expression of any of the various blood diseases; it may be simple in character, but in a majority of cases it is an expression of some disease located in some organ remote from the stomach itself. We must further keep in mind that it may be a beginning symptom in any of these surgical diseases that Dr. Reed mentions. It may be a beginning symptom of an arteriosclerosis. And so it becomes necessary in many of these cases to determine, is this so-called indigestion an expression of a disease located primarily in the stomach, or is it an expression of a disease located in another organ of the human body?

In conclusion, I wish to state that a paper of this kind presented before this society should stimulate us to better work as diagnosticians. We will then have a far better conception of the etiology of not only this, but many other symptoms which may present themselves, and with a better conception of the etiology it will put us in better position, where we will be able to apply an accurate and rational treatment to the disease.

President Howat: This paper is now open for general discussion, but I notice we have with us a worthy representative of one of our sister state organizations, and I would ask Dr. Wathem of Louisville, to take part in the discussion.

Dr. Wathem, Louisville: It is with much pleasure that I am with you to-day. I have had the pleasure on different occasions, beginning twenty-five years ago, to be with my friends in Indiana.

This question under discussion, so ably presented by the essayist and those who have discussed it, is timely, and of equal interest to the physician and to the surgeon. With a broader conception of what dyspepsia is and what is the correct treatment, there can be no difference between the physician and the surgeon. The physician necessarily in the past committed many errors in diagnosis, because his conclusions were based on theory and fancy. There is no longer any reason why the physician should base his conclusions in diagnosis on these things, but he can base them on the results of the clinical observations in these cases by the surgeon.

We must first recognize this fact, that while nearly every case of indigestion is only an expression of an organic lesion in some part of the body, there are about 30 per cent. of the cases dependent on lesions in the abdominal cavity; one-third the number of all cases of indigestion depend on some general disease, such as tuberculosis, arteriosclerosis, kidney and heart insufficiency; about one-third depend on neurasthenic conditions, atonic dilatation and gastroptosis. Now the other third, those of chronic ulcer, colitis, appendicitis, tuberculosis of the iliac joint, adhesions and infection of the adnexa, we surgeons are constantly dealing with. We find that they have been treated for many years without a knowledge of the organic lesion, and right here in the past the practitioners were very often in error about dyspepsia. They would tell us that chronic ulcer is about ten times as frequent in the stomach as in the duodenum. This is what Finley gives us, while it is positively shown that gastric ulcer is found one time where you have duodenal ulcer two to five times. Now these cases where you have an organic disease in the stomach, such as chronic ulcer, or colitis, or chronic appendicitis, or tuberculosis of the iliac joint, or adhesions, or pelvic infection—they are all cured by surgery and nothing else. The other

cases come particularly under the treatment of the physician, but when you take that class of cases where you have dilatation of the stomach or gastroptosis, they have gone through every stage of treatment and never cured. I remember reading an address of Dr. Mayo, delivered at Boston, where he said, "They come through every phase of treatment; they have tried osteopathy, Christian Science, walking barefoot over the grass, Lydia Pinkham's remedy and Pierce's Favorite Prescription, as well as that time-honored fake, that loaded dice, that shell game of the American medical profession—electricity—all with the same effect." That is Dr. Mayo's statement, not mine.

Dr. George W. McCaskey, Fort Wayne: The paper is one of unusual interest to every member of this society, but in a five-minute discussion, as has been repeatedly stated, it is impossible to do anything but touch on the different points.

We can do a number of things in diagnosing a case of indigestion. I think it is a good thing for us to take symptoms such as indigestion and study them from different points of view. It seems to me that the most important thing for us to do when we are confronted by a case of indigestion, is to determine, not whether the case is medical or surgical, but whether it is intragastric or extragastric, and in doing this I would like to emphasize what Dr. Wynn spoke of—the importance of studying the anamnesis. We do not spend half enough time and energy in getting the history of each individual case. If you will take a clue and follow it back you will frequently make a correct provisional diagnosis before you have finished the anamnesis.

In regard to two or three points brought out, I have no wish to criticize the two surgeons who have spoken, but I am going to say a word about this question of food residue. I do not believe it is true that finding a little residue one time, or several times as the essayist states, in the fasting stomach after eight or ten hours always indicates an organic condition. I have seen too many cases in which there was a food residue, not once, but a dozen times, and it improved with the improvement of the condition of the stomach wall. Dr. Reed admits it when he says that this food residue should be found several times in order to be used as a diagnostic means. If it can be present once without meaning organic disease, it can be present a dozen times. A residue twelve or fourteen hours is certainly very important, but I wish to emphasize what I believe to be true, that it can be due to atonic state of the stomach muscles, due to the conditions which we have clearly brought to us to-day, such as tuberculosis, toxemia and neurasthenia. So I think when the surgeons lay down this dictum that food residue means organic disease, they are going a little too far.

In regard to the symptom of pain, I would like to say a word. Perhaps the most important thing in regard to the study of pain is its time. I cannot enter into details, but I want to demur to what has been said this morning, to the dictum that has been laid down by many surgeons before, that painful indigestion always means a surgical case. Cabot said that, and his experience is certainly worth a great deal, but I do not agree with that.

Dr. Joseph Rilus Eastman, Indianapolis: I wish to express my appreciation of Dr. Reed's paper. Like all the others who have spoken, I do not like the term "indigestion." "Indigestion" is a syndrome; it means everything—it means nothing.

I want to call attention to the importance of distinguishing between those conditions in the abdomen which are surgical in character, and those which are medical in character, which give rise practically always to some symptom complex. As my friend, Dr. W. D. Haggard, has said, it reminds one of one of these country telephone systems where the bell rings for each call, and it is extremely difficult for us to determine in these cases where the site of the lesion is. But I would again reiterate the statement which has been made several times, that if we are to accomplish anything in dealing with these cases, we must diagnosis early. So many cases of gastric ulcer go undiagnosed. Somebody asked Dr. W. J. Mayo how it happened that they had so many cases of gastric ulcer to operate. He replied, "We diagnose them." They diagnose early. I submit to you, gentlemen, that there is no reason why we as surgeons should be expected to await a yellow flag before we operate for gall-stones, or await blood before we operate for gastric ulcer. I do not think Dr. Reed intended to convey the impression that he would operate on an abdomen the same as he would split open a watermelon; that is not the position of surgeons. But I do believe—if I may be permitted to class myself among surgeons—that many cases go drifting along which would be much better off if submitted to a properly made exploratory operation, which exploratory operation need not add to the gravity of the condition.

Dr. Miles F. Porter, Fort Wayne: My friend, Dr. Wynn, has taken the surgeons to task for their non-diagnostic ability. I would like to ask him how he accounts for the fact that in the dead house there are three gastric ulcers to one of the duodenum; while in the surgical laboratory the proportion is just the other way. The dead house people are treated by the medical men—the other fellows are treated in the surgical laboratory.

We all make mistakes. I quite agree with Dr. Wynn that we should get together, and when we do that we will get along better; but the point I

wish to make is this. Tumor development is a sure manifestation of cancer, and if you wait for that you have waited past the time when surgery will be of any use. I do not wish to advocate indiscriminate opening of the bowels, but I do say that the early diagnosis, pathological diagnosis of cancer can only be made by microscopic examination of that lesion, and your subsequent work based on your findings.

THE TREATMENT OF PULMONARY TUBERCULOSIS WITH ARTIFICIAL PNEUMOTHORAX*

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Over one hundred years ago Itard, of Paris, first investigated the cause of pneumothorax. Some of the symptoms and signs of this condition had been known since the time of Hippocrates, but it remained for Itard to give the first clear description of a number of cases in which fluid and air together occurred in the thorax. Since that time this condition has been investigated more thoroughly, and it has been found that in the large majority, practically 85 per cent. of the cases, an existing tuberculosis is the cause of the spontaneous pneumothorax.

Any one who has had occasion to observe a spontaneous pneumothorax from the very beginning, has noticed that while at first we have only air in the pleural cavity, it is only a matter of a few days until we find fluid in addition to the air. A dry pneumothorax where tuberculosis is the cause is rare, although in those cases of emphysema developing a pneumothorax it seems to be the exception to the rule to find an exudate.

The occurrence of a spontaneous pneumothorax has long been looked on as a practically fatal complication of an existing tuberculosis. We know that many consumptives die within a few hours or days after the occurrence of an acute pneumothorax, as a rule, suffocation being the cause of death. Within recent years, however, more and more observers have been reporting cases of spontaneous tuberculous pneumothorax, where the condition was recognized promptly and treated conservatively resulting in a cure. The sudden cessation of sputum and fever in these favorable cases, along with the improvement in the general condition and strength led to the advocacy of the artificial pneumothorax as a means of treatment of tuberculosis of the lungs. Carson, an English physician, was the first, so far as we know, to suggest this mode of treatment. Independently of him Speath, a German physician, made the same suggestion in about 1870.

It remained for Forlanini, of Pavia, to first put this method into actual practice. He published his results at the International Tuberculosis Congress in Rome, 1894. Murphy, of Chicago, independently of Forlanini, reported his results in a number of cases in the *American Medical Journal* of 1898. Lemke, in 1899, published a preliminary report of fifty-three cases treated by him, and at about the same time Schell published his report in the *New York Medical Journal*. Since this time, the procedure has apparently fallen into disuse in this country, although in the last year or so several men over the country seem to be taking it up again.

In 1904, Brauer, of Marburg, Germany, began his investigations of artificial pneumothorax, and to him more than anyone else we owe our exact knowledge of this subject. He, with his experimental work and his investigations of those cases which came to autopsy, worked out the details of this method and put what had been up to this time an empirical procedure on a rational basis. It is to him that we owe the modern lung collapse therapy of tuberculosis. While it is true that these methods are only applicable in a limited number of cases, yet, as he himself says, these cases in which we achieve success are a net gain in our treatment of a disease which is one of the most difficult problems with which we have to contend. Every life saved by the collapse treatment is one which would otherwise be lost, and this more than justifies us in making use of this treatment wherever it is indicated.

In producing an artificial pneumothorax we have two methods to choose from, that of Forlanini and that of Murphy. Forlanini simply introduces a needle connected with a gas container and a manometer into the chest, relying on the fluctuations of the manometer to indicate when he has the point of his needle between the two pleura. The disadvantage of the simple puncture is that one cannot always tell with certainty that the point of the needle has not penetrated the lung. One must of necessity work in the dark so to speak, and this is not without risk to the patient. There have been a number of cases in which sudden death from air embolus has occurred as a result of gas being injected into one of the pulmonary veins. One must not forget that there is normally no pleural cavity. The visceral and costal pleura are in close apposition, with only a very thin layer of fluid between them which acts as a lubricant. The exceeding thin-

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* Read at the annual session of the Indiana State Medical Association, at Indianapolis, Oct. 10, 1912.

ness of the two layers of pleura is reason enough why a simple puncture as Forlanini uses can result in injury to the lung as well as sudden death. I had occasion while working in the city hospital of Frankfort, Germany, to observe a case which came to autopsy, and in which an attempt had been made to produce artificial pneumothorax by Forlanini's method. There was an encapsulated empyema about the size of a goose egg at the point where the puncture had been made, and this had undoubtedly been caused by the puncture of a tuberculous focus of no small size on the surface of the lung. When the needle penetrates the lung, and is at the same time fixed by the thoracic wall through which it has been thrust, every respiratory movement must result in tearing of the lung tissue. We make similar experiences in puncturing the spleen. When the lung is consolidated at the point where the puncture is made, the veins are kept dilated by the consolidated tissue surrounding them, and they cannot be pushed aside by the needle as would possibly be the case in healthy lung tissue. These two facts make the occurrence of an air embolus easy. The advantage of this method of Forlanini's lies in its simplicity and ease, and it is undoubtedly much more agreeable to the patient.

Murphy's method consists in laying bare the costal pleura at a point where one may be fairly certain not to strike adhesions, which is usually in the fifth or sixth interspace in the axillary region. An incision from one and one-half to two inches long is quite sufficient, and operation can be carried out under local anesthesia. This method, while not at all difficult for one who has even slight skill in surgery, entails the strictest asepsis and the same attention to details as a major operation. It must not be forgotten that a large body cavity is being opened, and infection may have very serious consequences.

The patient as a rule receives a hypodermic injection of a quarter grain of morphin fifteen or twenty minutes before the operation. I use a one-half per cent. solution of novocain for anesthesia and thoroughly infiltrate the skin of the area where the incision is made. After incising the skin and superficial fascia, all bleeding vessels are clamped off so that the field of operation is as nearly absolutely dry as possible. The blunt dissection of the intercostal muscles is often painful, but is easily accomplished. When the costal pleura has been laid bare one can see the mottled lung beneath gliding backward and forward with every respiratory movement. A very slight pressure with the blunt cannula causes a rupture of the costal pleura, and one can hear the air entering the pleura with a hissing sound. The cannula is then tightly packed about with damp sponges to keep any gas from escaping, and before attaching the rubber tube from the gas bottle I pass a thin ureter catheter through the cannula as a probe to give some indication as to whether the lung has retracted or not.

The gas apparatus consists of two three-liter bottles, graduated at every fifty and one hundred c.c., connected at the bottom with about two feet of rubber tube, one of the bottles being filled with nitrogen gas and one with a solution of bichlorid of mercury. The sublimate solution flowing into the other bottle displaces the gas and forces it out through the tubing and cannula into the pleural cavity. Between the cannula and the gas bottle I connect by means of a three-way cock a small mercury manometer, which gives me the pressure under which the gas flows into the thorax, and when the flow of gas is stopped the pressure I have in the pneumothorax.

At the first sitting I never inject more than five or six hundred c.c. of gas. In closing the wound care must be taken that the intercostal muscles are tightly sutured so as to prevent the occurrence of subcutaneous emphysema, which, while annoying, is not dangerous and usually subsides within a week. Five or six small skin sutures are sufficient to close the wound which is then dressed in the ordinary manner with no drains. With good asepsis and first class suture material there is no danger of wound infection and subsequent empyema.

The object of this operation is simply to produce a small bubble of gas which can at later punctures be enlarged. I usually puncture the first time two or three days after the operation. The equipment is practically the same as at the first operation with the exception that the sharp needle is substituted for the blunt pointed cannula. It is hardly necessary to say that one does not puncture through the wound made at the first operation, but in one of the interspaces near it. Of course, I always make an x-ray examination to determine exactly the size and location of my pneumothorax before puncturing. In this way I avoid striking possible adhesions with my needle, and also avoid injuring the lung by puncturing too deeply. After the first puncture I puncture every week, until I notice by the amount of gas necessary at each injection that resorption is taking place more slowly, and then the intervals between punctures are lengthened until in several months patients go two or three weeks without further punctures being necessary. It is best to keep the pneumothorax at such a pressure that

there are no respiratory movements of the collapsed lung, which is usually a pressure of 3 to 10 mm. of mercury on expiration, and from ±0 to 1 or 2 mm. on inspiration. These pressures vary in the individual cases with the elasticity of the mediastinum and the degree of collapse obtained.

The production of an artificial pneumothorax cannot be said to be an operation requiring an extraordinary amount of skill, and the same can be said of the subsequent injections of gas. The difficulty with this mode of treatment lies in the selection of cases. On this one point alone one finds great diversity of opinion. From the accounts in the medical literature and from my own experience I have found that the more rigidly one adheres to Brauer's precepts the greater is the success attained. Operative interference should be reserved for those cases in which the usual sanatorium treatment does not bring success. Strictly incipient cases should, of course, not be treated surgically. A proportion of the moderately advanced cases will also respond readily to non-surgical treatment. We have, however, a number of advanced and far advanced cases in which the disease seems to show no inclination to heal in spite of anything one can do. Cavities of any appreciable size very seldom can be made to heal without surgical interference. In these cases, where the active disease is limited to one side, one is justified in attempting the pneumothorax treatment. Laryngeal tuberculosis is not always a contra-indication.

Where there are active lesions in both lungs, artificial pneumothorax on one side is very apt to cause the disease to progress, an absolute contra-indication to operative interference with the disease of the lung. Tuberculosis of the kidneys and generalized tuberculosis are also contra-indications. Laryngeal tuberculosis with great destruction of laryngeal tissues makes artificial pneumothorax inadvisable.

Our diagnosis in these cases depends on the greatest possible accuracy in the physical and *x*-ray examinations. Very careful percussion will almost always give us approximately the extent of any consolidations. It is in auscultation that we encounter difficulties in the advanced and far advanced cases. With changes in the breath sounds, and râles transferred from one side to the other, and from one place on one side over the remainder of that side, it is no wonder that the examiner is occasionally confused. Usually repeated examinations are necessary to arrive at a conclusion. The greatest difficulty lies in the diagnosis of pleuritic adhesions. In some cases where there is a history of a previous pleurisy, and where, on physical and *x*-ray examination, there is very little, if any, opening up of the complementary space, one is occasionally surprised to find at operation few or no adhesions. In other cases where careful physical and *x*-ray examinations do not reveal any evidences of pleuritic adhesions it may at operation be absolutely impossible to inject any gas between the pleura. Sometimes after exposing the costal pleura the lung may be seen gliding back and forth beneath and yet small thread-like adhesions may exist in sufficient number to hinder a collapse of the lung.

The examination with the *x*-ray is fully as important as the physical examination. As a rule, I make one large plate of the entire chest and a smaller one of only the apices. In addition to this, the examination with the fluorescent screen shows the movability of the diaphram, and has the advantages over the plates in that one can turn the patient in any position he wishes, and often get a more accurate idea of the exact location of larger consolidations and cavities. The plates show much greater detail and bring out things that cannot be detected with the screen. They are, of course, a permanent record, and can be examined and studied with more thoroughness than a screen examination would allow. It would obviously be impossible to keep a patient before an *x*-ray tube for ten or fifteen minutes on account of the danger of *x*-ray burns and on account of the fact that no *x*-ray tube will stand more than one-half minute of operation at a time with any considerable current going through it. Both the screen and plate examinations are absolutely indispensable. We have no other means of locating deep seated lesions, although, of course, one cannot determine by the *x*-ray examination whether or not these lesions are accurate.

A considerable amount of healed trouble on the supposedly well side, as indicated with the *x*-ray, would be a contra-indication to operative interference. It is essential that the operator have equal skill in *x*-ray as well as physical diagnosis because neither one is as serviceable as the two in conjunction. In nearly every case the results with one method will supplement and complete those obtained with the other. Here I wish to state that it is only by having frequent autopsies to check our diagnosis that we can obtain the necessary accuracy. The findings at the autopsy table will, more than any other one thing, teach us to be modest in our estimation of

our own skill and correct habitual mistakes in diagnosis.

The result of the operation depends directly on the degree of collapse of the lung one can produce. Where numerous adhesions will not permit the larger part of the lung to collapse, there is little or not change in any of the patient's symptoms. Where an extensive collapse is produced, the patients usually notice a more or less marked diminution in the cough immediately following the operation. Usually there is an increase in the amount of sputum the next day, to be followed from that time on by a marked decrease. One occasionally notices the same thing after the first few punctures. Sometimes there is also an increase in the fever immediately following the operation, due, no doubt, to the toxins forced out of the lesion by the compression. More often one notices an immediate drop in the temperature, and, where one has secured a good collapse of the lung, the fever will disappear entirely within a few days. Quite often where there is an increase in the fever, any healed lesions that may be present will show signs of irritation, which disappear in the course of several days, just as in a constitutional tuberculin reaction.

When the patient becomes free of fever and his cough and sputum are reduced there naturally results a marked change for the better in his general condition. The appetite improves and with it the strength. Patients do not always gain so rapidly in weight as one might expect, but they usually gain slowly and steadily. In several weeks they are usually able to be up and about without any noticeable bad effect on the condition of the lung or on the general condition. These patients do not notice any dyspnea on ordinary exertion as one might perhaps expect. Circulatory disturbances are also uncommon. There is no noticeable hypertrophy of the right heart. Several of these operative cases have come to autopsy and were reported by Graetz. One is struck by the amount of connective tissue formation in the lung as compared with other tuberculous cases in whom there has been no operative interference. In tuberculous lesions, as in other lesions, healing means sufficient formation of scar tissue to replace the defect. In tuberculous cases treated by other methods, including various kinds of tuberculin and vaccines, I have never seen such marked connective tissue growth in affected lungs as in these operative cases. Nor does one, in ordinary cases, see these broad flat scars indicating a healed cavity. Here again the autopsy table furnishes the final proof of the value of a method of treatment.

Why does the collapse of a tuberculous lung bring about such marked changes in the condition of a patient? We know that the flow of lymph from the lungs to the bronchial glands, and into the general circulation is, to an extent, controlled by the respiratory movements of the lung. Where the chest wall is elastic and the diaphram unhampered in its movements, there is possible the greatest amount of respiratory expansion and contraction of the lung, with a corresponding rapidity in the flow of lymph. In any normal lung, the flow of lymph from the parenchyma to the hilus is greatest in those parts where the respiratory movements are greatest. In the tuberculous lungs the toxins are borne from the lesion into the general circulation in the lymphatic fluid, and the more rapid the flow of lymph, the more toxins brought into the general circulation, and the more severe are the symptoms of this intoxication.

In the ordinary sanatorium treatment of tuberculosis we try to reduce to a minimum this absorption of toxins, by putting the patient at as nearly absolute rest as possible, thus reducing the amount of movement of the lungs. In inducing collapse of the lung we go farther still, in that we almost entirely stop the lymphatic flow by preventing any respiratory movements. There results in the collapsed lung, not a hyperemia and stasis, as one might at first expect, but an anemia, and with it, of course, a diminution in the amount of the lymphatic fluid in the collapsed organ. In other words, we prevent the toxins from getting into the general circulation, and causing the toxic symptoms which are common to this disease. This explains the cessation of fever, improvement in the appetite and disappearance of such other symptoms as may be caused by this intoxication, as for instance, disturbances in digestion.

As remarked before, it is very difficult, with any of the means we now have at our command, to bring about healing of a cavity that has attained any considerable size. By compressing the lung we can often bring the walls of the cavity in apposition, and thus bring about complete and permanent healing. This explains the great decrease in the amount of sputum and, of course, with it the cough in these cases. Not only that, but we prevent mechanically those movements of the tissue which hinder formation of scar tissue. Just as we often put tuberculosis joints in plaster casts to prevent movement and permit a scar to be formed, so do we put the lung in a cast of gas with the same end in view.

The question at once arises as to whether these cases really stay cured, or as to whether the dis-

ease will continue to make progress, when the lung is allowed to expand again. I can only relate what I myself have seen, and say that in those cases where a satisfactory collapse was obtained, the permanent results, even in advanced and far advanced cases, are often as good as those we obtain with incipient cases treated by non-surgical methods; in other words, clinical cure. I have known women patients to get married, after having gotten well from tuberculosis with pneumothorax treatment, and even go safely through the ordeal of child-birth, which it seems to me is as good a test as any we have. During my year and a half as Brauer's assistant I had opportunity to see and examine practically all of his cases who reported for re-examination and observation, and most of them were engaged in their usual avocations, only observing such precautions as any intelligent person would observe, who was familiar from personal experience with a disease as treacherous as tuberculosis. One of these cured cases was an orderly in Brauer's clinic, and did quite heavy manual labor, as was exacted of other orderlies who had never been sick. It seems to me that these results speak for themselves.

As a rule we find adhesions sufficient to prevent satisfactory collapse of the lungs in about 25 per cent. of the cases on whom we attempt to operate. These patients, realizing the hopelessness of their condition, often ask us to do something for them, even to the extent of submitting them to a dangerous operation. In these cases we can often induce satisfactory collapse of the lung by some form of thoracoplastic operation. The thoracoplastic operations for producing collapse of the lung in cases of tuberculosis were first advocated by Brauer, although a number of surgeons had made attempts to treat cavities and tuberculous abscesses of the lung surgically long before his time. This is not the place to go into details concerning this work, but I just wish to state that I have seen cases in which sufficiently satisfactory collapse was produced by such an operation to result in healing of the diseased lung.

Among the patients at the Indiana State Hospital for Tuberculosis I have made eleven attempts to induce artificial pneumothorax. In two cases it was absolutely impossible to get any gas into the chest on account of very extensive adhesions. In another case it was possible to get a small amount of gas into the pleural space, but on attempting to enlarge this small pneumothorax, which was on the left side, there resulted circulatory disturbances, which made it impossible to continue this form of treatment. None of these patients were permanently injured by these attempts. In five other cases a partial collapse was secured, sufficient to result in more or less benefit to the patients, as evidenced in decrease of fever, cough and sputum, and betterment of the general condition. I doubt, however, as to whether it will be possible to bring about healing in all of these five cases. The symptomatic improvement has, so the patients feel, more than repaid them for having submitted to the operation. In three cases I have been able to get a degree of collapse, which, I believe, by the progress we have made up until this time, will result in clinical cures. In only one of these eleven cases were there no adhesions whatever, and a perfect collapse was possible. In Brauer's cases there were 40 per cent. successes, a result which is all the more wonderful when one considers that, he up until a year or so ago, would only consent to operate on the absolutely hopeless cases. He now takes the stand that it is often wise to operate on patients who are not so advanced as those whom he has reported, and he believes that a still better record can be achieved.

We have, then, another weapon to use in our fight against tuberculosis, and while its use must of necessity be limited, it, nevertheless, can be employed in saving lives that are now hopelessly lost. The collapse therapy, whether it be by means of artificial pneumothorax or some plastic operation, is entirely rational, and supported by clinical and experimental evidence. It has won recognition both in this country and abroad, and can no longer be ignored. The results of this work and the principles underlying it also go to prove that there is an entirely mechanical factor in the growth of a tuberculous process, and that this factor, as well as the theories of immunity, must be considered in attempting to explain consumption of the lungs.

The patient I wish to present to you is 18 years old and was employed in a factory up until the time he became sick. Both parents are alive and well, and there is no tuberculosis in any of his immediate family. No source of infection can be traced. He has never been seriously sick until this present illness. He became sick in October, 1911, with chills, fever, cough, sputum and pains in the chest. He immediately began losing weight and strength, and went down hill rapidly. He was admitted to our hospital on December 11, 1911. Up until the time of admission he had lost fifteen pounds in weight. On examination I found rather dense consolidation, extending to the third rib on the right side in front, and to the fifth dorsal vertebræ behind, with numerous dry and moist râles for some distance below the consolidation. There were some pleuritic friction sounds at the right base. The left side was entirely free from top to bottom. Sputum exam-

inations showed numerous tubercle bacilli with the usual secondary organisms. The urine was normal. From the very beginning his afternoon temperatures ranged from 38 to 39 degrees C. (100° F. to 102° F.). He was given old tuberculin in minute doses, but with no effect on the temperature one way or the other. He steadily lost weight and strength, became pale and anemic looking, and one could readily see that the outlook was very bad in spite of all that one could do. The lung lesion showed signs of breaking down, the râles became more moist, and the breath sounds over the apex indicated cavity formation. The *x*-ray examination substantiated our physical diagnosis. On being told about the pneumothorax operation the patient immediately requested that it be done for him, because he realized that it was his only chance for recovery. The operation was performed on the eleventh day of May, and presented nothing out of the ordinary. There was an immediate drop of a degree in his temperature, and his sputum was diminished to one-half. Since the operation his temperature, which ranged every evening from 38 to 39 C. (100 to 102 F.), has only twice exceeded 38 C. (100 F.). Since the middle of August the temperature has been normal, and the pulse-rate, while at first somewhat above normal, is practically always below 100 now. He has gained in weight, and recovered strength practically up to his normal condition before he became sick. His sputum has been reduced from 500 to 5 c.c. a day, and will very likely cease entirely soon. It still contains a few tubercle bacilli. The *x*-ray examination immediately following the operation showed an adhesion at the apex, and a smaller one between the base of the lung and the middle of the diaphram. The adhesion at the base tore loose after the second or third puncture. I intend to keep the lung collapsed for six months after all sputum has ceased, and then allow the gas to become slowly absorbed. Should the patient develop sputum again, the injections will be continued for several months longer, when another attempt will be made to allow resorption to take place.

BIBLIOGRAPHY

1. Bach: Ueber das Vorkommen des spontanen Pneumothorax bei Emphysem, Brauer's Beitr. z. Klin. d. Tuberk., xviii, No. 1.
2. Brauer and Spengler, L.: Die Technick des kuenstlichen Pneumothorax, Brauer's Beiträge, vol. xiv.
3. Brauer and Spengler, L.: Klinische Beobachtungen bei kuenstlichen Pneumothorax, Brauer's Beiträge, xix, No. 1.
4. Brauer: Erfahrungen und Ueberlegungen zur Lungenkollapstheraple, Brauer's Beiträge, xii, No. 1.
5. Brauer and Gekler: Ein Beiträg zur Differentialdiagnose zwischen extrem grossen Kavernen und Pneumothorax, Brauer's Beiträge, vol. xiv.
6. Emerson: Pneumothorax: A Historical, Clinical and Experimental Study, Johns Hopkins Hosp. Rep., 1903, xi, 1-9.
7. Forlanini: Versuche mit kuenstlichen Pneumothorax bei Lungenphthise, München. med. Wchnschr., 1894, No. 15.
8. Gekler: The Early Diagnosis of Pulmonary Tuberculosis, The Journal, May, 1912.
9. Gekler: Erfahrungen mit der von Brauer empfohlenen Sektionstechnik der Lungen, Brauer's Beiträge, xxii, No. 2.
10. Lemke: Pulmonary Tuberculosis Treated with Nitrogen Injections, Jour. Am. Med. Assn., 1899.
11. Murphy: Surgery of the Lung, Jour. Am. Med. Assn., July and August, 1898.
12. Spengler, L.: Ueber mehrere Faelle von geheiltun tuberkuloesem Pneumothorax mit gleichzeltiger Heilung der Tuberkulose, Ztsch. f. Tuberk. u. Heilstättenw., 1901, ed 2, Nos. 1-2.
13. Mosheim: Die Heilungsaussischten der Lungentuberkulose, Brauer's Beiträge vol. iii.
14. Tendeloo: Urschen der Lungentuberkulose.
15. Garre and Quinke: Grundriss der Lungen Chirurgie.
16. Graetz: Der Eingluss des kuenstlichen Pneumothorax auf die tuberkulose Lunge, Brauer's Beiträge, x, No. 3.
17. Scholl: New York Med. Jour., Oct. 1, 1898.

DISCUSSION

Dr. Charles P. Emerson, Indianapolis: I doubt if anything in medicine promises any more for a large number of cases than this new treatment for the advanced cases of pulmonary tuberculosis. When we remember that in this country 111,000 die of pulmonary tuberculosis every year, we can see the value of this new treatment. It was first used in France, and then in Spain and Germany, but used very little until recently, and we are fortunate in having a man from our own state institution who can bring it before us as Dr. Gekler has to-day. He comes to us with an experience developed more than these other men, and we ought to be proud that this treatment in this country has been first taught in Indiana; I am sure it will raise our state to a very enviable position.

I would like to ask Dr. Gekler why he uses nitrogen. Ten years ago I was very much interested in this problem and performed operations on dogs, and I found that no matter what gas was introduced into the dog's thorax, it soon became the gas of the venous circulation; within an hour the chemical composition of the gas of the pleural cavity was that of the venous blood. This was done following Hemphill's method.

As I have said, these cases are very interesting, indeed. We expect great things for this operation. It is being used in the Saranac region, and in Baltimore. It promises splendid things for the patient, and I fully believe if I found I was suffering from pulmonary tuberculosis, and if after fair trial of the rest treatment I did not improve, I would send for Dr. Gekler and take treatment with pneumothorax.

Dr. Miles Porter, Fort Wayne: Perhaps no therapeutic fact is more firmly established than is the fact that rest has a most powerful, beneficial influence in the repair of damaged tissues. Especially is this true as applied to tissues damaged by infection and more especially to tissues damaged by tubercular infection.

The questions that arise first in connection with induced pneumothorax for the cure of tuberculosis of the lung are two: 1. Is the measure primarily safe? 2. Does the measure entail more or less remote dangers such as arise from anemia due to compression, adhesions of contiguous surfaces, dissemination of the infection, etc., which overbalance the good to be derived from the compression? Speaking to the first of these ques-

tions, it would seem that we are warranted in concluding that the production of artificial pneumothorax is an operation which entails little or no immediate risk. This conclusion is borne out by the experience gained from the treatment of tuberculosis of the lung by the induction of artificial pneumothorax, which experience now covers hundreds of cases, and by the experience of surgeons in operations on the chest for various pathologic conditions.

There are probably others, but I know of but one case reported[1] in which the onset of an acute pneumothorax caused violent abdominal symptoms simulating perforative peritonitis. The second question, as to remote dangers, may also be answered in the negative.

The experiences of Bauer and Spengler[2] in Germany, and of Murphy and others in this country, seem to show that we need fear no more or less remote dangers from this treatment of pulmonary tuberculosis. Forlanini[3] has had success with this method of treatment in two cases in which, after the healing of one lung, through its use he also used it on the opposite side. Courmont[4] says that under this method of treatment even ulcerative processes in the larynx may heal.

I am not ready to concede that tuberculosis of the intestine is a positive contra-indication to this treatment. It is generally conceded, I think, that artificial pneumothorax proves beneficial in pulmonary tuberculosis chiefly, if not entirely, because it puts the lung at rest. Other things being equal the improvement will correspond to the completeness of the rest.

Rubel's[5] experiments on rabbits and dogs in which he put the lung at relative rest by tying the ribs together, thus obliterating the intercostal spaces and inhibiting the excursion of the lung, together with surgical experience generally, confirms this opinion.

Perhaps the only advantage in using nitrogen instead of air is that the rapid absorption of the oxygen of the air necessitates the repetition of the procedure more often when air is used than when nitrogen is used. O'Day, of Portland, Ore., has used air with success, but I have lost the reprint and cannot find the reference to his article.

Holmgren[6] has succeeded in detaching pleural adhesions by pressure of saline injections, and thus doing away with this obstacle to the induction of pneumothorax. This or any other method for the purpose of breaking up pleural adhesions of tubercular origin should be used with extreme caution, if at all, because of the great danger of secondary infection.

1. Beardsley: New York Med. Jour., March 18, 1911.
2. Würtzburg Beiträge, xix, No. 1, pp. 1-335; abstr. in Jour. Am. Med. Assn., 1911, lvi, 1075.
3. Jour. Am. Med. Assn., 1911, lvi, 626; abstr. in Deutsch. med. Wchnschr.
4. Lyon Med., Dec. 11, 1910, cxv, No. 50, pp. 981-1,024; abstr. in Jour. Am. Med. Assn., 1911, lvi, 544.
5. Jour. Am. Med. Assn., 1911, lvi, 160; abstr. in Würzburger Beiträge.
6. Progr. Med., September, 1911, iii. 27.

In conclusion, I would say that the success thus far obtained in the treatment of pulmonary tuberculosis by the production of artificial pneumothorax warrants a continuation of the use of the method until the accumulated facts are sufficient to warrant definite conclusions regarding it.

Dr. Charles R. Sowder, Indianapolis: Ladies and Gentlemen: I have just one thing to say on the paper of Dr. Gekler. That is, the necessity, or the importance of selecting the particular type of cases to which this work is suited, namely, tubercular cases in which one side only is affected.

I have been very much interested for the past eighteen months in watching the work of Dr. Gekler in the state institution, and also the difficulties under which much of this work has been done. I am very glad to see presented here two cases which I have seen three or four times before in my visits to the state institution, and who show the results that are being accomplished. I am also glad to note the statement of one of the discussants that this work is being first done in the State Institution of Indiana. I believe that after knowing some of the things that have been accomplished in this institution in combating tuberculosis, that a little of the report of the committee on tuberculosis, as given in our last Journal, ought to be revised, at least before becoming a permanent part of our records.

It is the duty of every physician in Indiana, especially the members of this Association, to hold up the hands of the state institution for the care and treatment of tuberculosis, and to obtain some appropriations for better facilities for caring for the patients, more help and more apparatus. The state institution, as I understand it, is trying in the best way possible (being the youngest of our institutions, only 18 months old) to work along approved lines, on a solid foundation, with a definite purpose in view; to accept all incipient cases, and such others as they have room for; to demonstrate the most recent advances in the treatment of cases which physicians ordinarily pronounce hopeless, and thereby reduce our future percentage of mortality. The patients here presented, particularly the young man in which the gas was injected into the lung, have made an advance over a number of other cases that it has been my privilege to observe who have not had this treatment. During the past eighteen months the institution has sent out over 400 patients, each one of them to advocate in their own community the better method of treatment and the better ways of living.

I congratulate Dr. Gekler and the superintendent, Dr. Leavitt, on the work being done there, and I want to say that every member of this Association should avail himself of the opportunity to visit that beautiful spot in Parke County, and to look through the institution and see the work being done there under difficulties. Let us get behind these men, and at the next Legislature give them a boost, and help put the

State Institution of Indiana, as can be done, in the forefront of similar institutions in the United States.

Dr. T. C. Kennedy, Indianapolis: I want to add to what Dr. Sowders said, a plea that every physician in the state visit the institution. In the last year I have made several visits there, and have seen the work being done. I am sure the state has made a wise selection in having a man of Dr. Gekler's standing do this work, and I am glad he has been able to do this work first of anybody in the United States.

I think it is the duty of every county society to get behind this movement. It is a work for humanity. If the legislators could once visit this institution and see the patients suffering as they are, but still with a chance to cure them, I believe the money would be appropriated to run the institution. There is no trouble to get money to stop glanders, or scale on trees, but when we want money to save the human race, it seems almost impossible to get. I would beg every county society to consider this matter. After a personal visit to the institution you realize what a grand work is being done. I am glad the institution has been started, but in order to run an institution of this kind there must be money provided by the state, and if the medical profession will get behind this thing and push, and ask the Legislature to appropriate money, there is no reason why we should not have the best tuberculosis hospital in the United States.

Dr. Theodore Potter, Indianapolis: It is a matter of occasional observance to every physician, and rather frequent for those who see more pulmonary tuberculosis, the remarkable improvement sometimes arising from the occurrence of pneumothorax. It is not always so, of course, because a considerable proportion of cases of pneumothorax are rather rapidly fatal; but every once in a while we see a case of pulmonary tuberculosis that is arrested by such an occurrence, practically resulting in the cure of the patient.

Twelve years ago, I think it was, I read a paper at the Indianapolis Medical Society on this subject. I know that Dr. Murphy, of Chicago, has emphasized this treatment. I have reported a number of these cases from time to time in the last twelve years. I object to the injection of sterilized water and salt solution, but I have injected sterilized oil, and a long time ago showed that you could inject this oil into the pleural cavity of man and it would stay as long as you wanted it to. It is a surprise to many to know that this has been done for the last twelve years.

I can tell you, by a considerable experience, that in the long run the thing you will meet with in attempting to carry out this treatment is just what Dr. Gekler has told you, and that is that there are many cases, even in the one-sided cases, where there are adhesions that interfere with a thorough-going compression of the lung. I have repeatedly failed in past years to secure such compression, apparently on account of that condition. Now the new thing about this is the attempt to overcome that obstacle by various means, to get rid of these adhesions there and allow a more thorough-going compression, and also to guide the pressure in a scientific way.

The whole matter was discussed at the American Medical Association, following a paper by Dr. Lathrop, of New Orleans, who advocated the use of several things, one being the use of the manometer in order to register the exact pressure, and also the daily use of the skiagraph, the procedure being to obtain the amount of pressure, and with the picture by the skiagraph you knew how much pressure it took to compress the lung, and then you could be guided by these records afterwards. That is a great modern improvement. In connection with the discussion of Dr. Lathrop's paper, a man from Boston, who had done a whole lot of this work such as Dr. Gekler reports here, advocated surgical interference, and an attempt has been made in a considerable number of cases—and successfully—to get rid of these adhesions, and thus allow a more thorough-going compression of the lung.

So while this treatment is old here as well as elsewhere, yet the things that mark the present scientific attempt to carry it out are, according to the discussions at the American Medical Association, an attempt to regulate and record the pressure, to record the conditions there by the use of the *x*-ray and the intervention of surgery in the attempt to lessen the obstructions, and to increase the number of cases in which they can secure a thorough-going compression of the lung.

Dr. Gekler (Closing): Mr. Chairman: The first thing I wish to do is to express my most cordial thanks to all of the discussants. I assure you it is no small pleasure for me to have a compliment such as Dr. Emerson has given me—especially when we consider that the best monograph that was ever written on pneumothorax was written by Dr. Emerson.

The introduction of the manometer was Brauer's idea, and his great work in working out the experiments from clinical data gave this movement a rational basis. Before that it had been entirely empirical. Now we know what we are about and why. The treatment is old, but the rationale is comparatively recent.

The question of the selection of cases is a very important one. It takes, as has been said, all the skill we can bring into use. I do not think I have done any harm to any of my patients in these attempts, but success will depend particularly on the degree of care exercised in selecting the cases. Our diagnosis is of extreme importance. It is only by accurateness and thoroughness that we can hope to succeed, and I want to plead again for accuracy in diagnosis of the lungs. That is the basis of the modern surgical treatment of pulmonary tuberculosis, and we cannot afford to neglect it in these days.

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EDITORIALS

A RADICAL IMPROVEMENT IN ETHER ANESTHESIA

In the *New York Medical Journal,* of September 14, 1912, appeared an editorial concerning a recent refinement in the administration of ether anesthesia for which almost unbelievable claims are made. It is asserted that by the method prescribed the odor of the anesthetic is completely disguised so that the patient is unable to tell when its administration began; the preliminary stage of excitement is abolished; one-half or less of the usual quantity of ether is required; only in the rarest instances are there nausea and vomiting, and finally, kidney irritation seems to be entirely done away with. A fundamental element in this Elysian dream of anesthesia is the employment of the essential oil of orange, one ounce, and three ounces of water in the hot-water bottle of Gwathmey's three-bottle vapor apparatus, the other two bottles containing ether.

In the *Journal of the American Medical Association,* December 17, 1910, Dr. Gwathmey's apparatus is illustrated and described in considerable detail, one of the advantages being the long tube for administration for nose and throat operations where it is desirable that the anesthetist be as far removed as possible from the field of operation. The only deviation from this apparatus as described seems to be that Dr. Gwathmey now prefers to use ether in both bottles instead of chloroform in one and ether in the other. It may be remembered that oil of bergamot, terpineol, cologne water, oil of wintergreen and various other penetrating odors have at different times been suggested as a preliminary means of disguising the odor of ether. And it was through Dr. Gwathmey's efforts to find the best such agent to soothe and reassure little children undergoing anesthesia that he came on the essential oil of orange which he noted in Tigerstedt's physiology to have ten times the penetrating quality of ether vapor. In fact, so effective was this oil in calming the little ones that Dr. Gwathmey only by actual experiments on guinea-pigs could dispel the illusion of some inherent anesthetic property of the oil itself. Although these animals were not in the least rendered unconscious by the inhalation of the oil, they exhibited a calm seemingly allied to enjoyment.

On September 9, four operations were performed at the United States Naval Hospital, Brooklyn, on robust and not especially temperate service patients for hernia, double hernia, varicose veins and hemorrhoids, respectively, the Gwathmey method of anesthesia being employed by its inventor. In all cases there was a total absence of the usual unpleasant phenomena and sequelæ of anesthesia, recovery following close on the completion of each operation and the patients apparently perfectly normal. The urine was negative in all four cases. Those present were naturally much surprised at the ease with which anesthesia was induced and saw the great advantage of the method for use on shipboard, both because of the ability to do away with cumbersome nitrous oxid oxygen apparatus and to cut the supply of ether in half, two ounces an hour being ample in this method.

It is possible that the questions of noci- and anoci-associations find here a practical solution in that a few drops of oil of orange suffice to accomplish what formerly required much preliminary psychic care, gas-oxygen inhalations and injections of local anesthetic. The author of this editorial in the *New York Medical Journal* wonders whether pleasant odors may not be narcotic to the olfactory nerve. He remarks that certain unpleasant odors are undoubtedly terrifying to animals, as for examples those of their enemies, and if pleasant odors are sedative to the olfactory nerve, may we not explain their extraordinary influence over the entire nervous system at least when followed by ether? Or is it a question of association of ideas? Ether suggests in the minds of adults the surgical knife, while in children it terrifies because of its irritating qualities. Possibly the familiarity and harmlessness associated with the odors of flowers and fruits suffice to suggest effectively to the subject that that which he is about to undergo can be neither dangerous or unfamiliar.

So far no fatalities have resulted from the orange-ether or orange-chloroform-ether sequence, and only the most favorable effects are to be noted. Anyone who has had any experience in anesthesia among children will be delighted to find a method wherein the child lies on the table, breathes in with apparent relish that which we have only been accustomed to see it resist and

fight against, and ultimately wakes up in a comparatively normal state without any nausea or vomiting to follow.

Again, the profession will be grateful for a method which is not only pleasant and easy of administration, but will allow the anesthetist to be free and away from an operative field, as in head work, wherein he has always felt himself to be an obstruction both from the mechanical as well as the aseptic standpoint.

THE RATIONALE OF CARBOHYDRATES IN INFANT FEEDING

Fortunately for the pediatrician, there are but three elements of importance in the normal baby food, that is mother's milk. Years ago the proteids were attacked, thrashed and beaten about and accused of being guilty of the maximum number of infant ills. Some kind enthusiast came along and discovered that much of the curd in a sick baby's stool could be shaken out and dissolved in ether, and that such curd when burned in a flame gave a distinct odor of fatty acid. The villainous proteid thereupon was released from custody, and in its place the fat was jailed. So that for several years back pediatric literature teemed with discourses on the malignant influence of high fats. Despite all these scientific discussions full of definite certainties, babies continued to have summer diarrheas, to vomit and to lose weight. Subsequently some individual seeing that when a number of the curds were so shaken in ether as above described there remained a certain residue even after the fat was dissolved out, hence the guilt was divided and a combination of fat and proteid was evolved as the exciting factor of many of these digestive disorders.

More recently still, however, the carbohydrates have come in for their share of the discussion, both as destructive and constructive agents, although the importance of carbohydrates as sources of fuel and heat to the body has long been recognized. There remains now to study the injurious effects of carbohydrate intolerance and during recovery from such conditions, the relative toleration and absorbability of the different sugars. Such a contribution is interestingly presented in the September number of the *Archives of Pediatrics* by Thomas S. Southworth. In it he calls attention to the fact that in health the three sugars have been utilized by the infant with about equal facility, but that it has remained for recent nutrition-pathologists to assign to each form of sugar its relative position as a disturbing factor. On the basis that because it is indigenous in the mother's milk lactose should be most innocuous, this form has been for a long time accepted as the most readily utilizable one. Recent investigations, however, have proven quite the contrary, and at present the sugars in the order in which they are best borne after carbohydrate injury, should be arranged—malt sugar, cane sugar and milk sugar. We should keep in mind the fact, previously overlooked, that so-called malt sugar has always been a common source of human nutriment, having been formed from the starch elements of the diet by the digestive ferments.

In considering the rationale after the recently-revived recognition of maltose as an important carbohydrate element, we should recognize that the terms malt sugar and maltose as applied to the substances commonly employed in infant feeding are both inaccurate and misleading. Pure maltose is both rare and expensive and the commercial products with such name are often too loose both in name and quality. Any preparation produced by the action of diastasic ferments on starch might be named maltose, but not pure maltose, since the action of such ferments invariably produce a mixture of the various dextrins with maltose. Raw starch boiled gives a gelatinized mass called amylo-dextrin to which the addition of a small amount of one of the diastasic enzymes suffices to bring the water into chemical combination with the starch. Further action of the enzyme produces together with maltose an important group of dextrins, namely, erythro-dextrin, achroo-dextrin and malto-dextrin. For our purposes it is immaterial whether the maltose is split with each advancing step of the change or whether it is an end product since finally we know that the addition of the enzyme to the starch results in the formation of both maltose and dextrins. We have, then, in the same mixture a crystalloid, fermentable and dialyzable disaccharide, maltose and a reversible productive, non-fermentable and non-dialyzable polysaccharoid, colloid dextrins. It seems strange that physiologic chemists were so long in recognizing the contrasting properties of these two associated starches, and yet for years little attention was paid to this important group of dextrins. In pediatric literature the dextrin element was considered for a long time as a necessary but therapeutically negligible accompanying factor to maltose.

The use of maltose and dextrin in the human economy is as old as the digestion of starch.

Liebig utilized it in various forms, Chapin employed it in dextrinizing gruels; Keller in his malt soup, and now Finkelstein declares it essential to the convalescence of an infant suffering from "dyspepsia, decomposition and intoxication." Present day literature would seem to indicate that maltose is now recommended chiefly because of being less fermentable and more readily absorbed than other sugars. As a matter of fact, however, maltose does ferment readily, but in so doing it cleaves into two quickly absorbable molecules of dextrins which thus affords less opportunity for decay by undesirable ferments. It is well known that both starch and the dextrins are polysaccharids and that the end products produced from the latter by the enzymes during digestion are monosaccharids, of which dextrose is recognized as the most suitable for this purpose, galactose and levulose as the respective monosaccharids from milk sugar and cane sugar requiring a further process of inversion to dextrose; hence the rationale for ready digestibility of maltose which splits into two molecules of the readily absorbable dextrose.

The association with dextrin of maltose in the treatment of convalescents from acute bowel disturbances probably owes its success to the fact that the polysaccharid dextrin acts in the same astringent way to an irritated bowel mucosa that has long been observed by the old and familiar starch enema on the lower bowel. This same astringent effect of gelatinized starch probably explains the beneficent effect of the thin barley gruels in intestinal disturbances, in the place of milk and sugar mixtures. Furthermore, while the dextrin-maltose combination affords one readily absorbable mixture, yet its whole content is not utilized at once, and the starch is reserved for further elaboration into its component element, maltose, or rather eventually into dextrose from maltose so that since we have come to realize the practical utility of having the combination of dextrin with maltose we may more intelligently turn to the various combinations on the market. Such preparations as Saxhlet's Nahrzucker, Loeflund's Nahrmaltose, Mead's Dextri-Maltose and Loeflund's Malt Soup Extract represent different quantities in percentage of maltose and dextrin. Realizing the effect of temperature in the production of both maltose and dextrin a ready method of increasing or decreasing the amount of each of the constituents in producing a food is at hand. It is quite possible that an intelligent understanding of the relative merits of maltose and dextrin will afford a powerful weapon in combating the ravages on the health and strength of these little invalids resulting from acute bowel disturbances.

BETTER TRAINING FOR SPECIALISTS

In one of our exchanges we find the remark that "there are too many half-baked specialists." It is a well-known fact that there are many men posing as specialists in surgery, and particularly in ophthalmology and otolaryngology, who have had little or no training outside of a very superficial four to six weeks' course in some good, bad or indifferent post-graduate school. The legitimate specialist suffers in consequence, because, in a measure, he has to bear the odium of being classed with his illy-prepared brethren by those who are not in position to know how much training each particular specialist has had or how illy prepared he is for the work he has undertaken. The public also suffers to an extent which brings the general level of specialism lower than it should be.

There can and should be some recognized standard of fitness for the practice of a specialty, and the growing plea for a demand on the part of boards of medical examination and registration for proper qualifications on the part of those who are permitted to practice a specialty, should receive serious consideration.

So far as the practice of ophthalmology is concerned, Dr. Edward Jackson, in the September number of the *Ophthalmic Record*, discusses the question in a comprehensive manner and offers some very logical conclusions. He says: "The educational training and equipment that ought to be possessed by one who would enter ophthalmic practice includes besides an education in general medicine: (a) Knowledge of the minute anatomy of the eye. Not simply of cell structure and relations, but of small details of topographic surgical anatomy, that are not taught in the anatomical courses of our medical schools. (b) Familiarity with facts in the physiology of vision that are not and cannot be taught to all medical students. (c) A course of laboratory work in the pathology and bacteriology of the eye, such as is not and cannot be given in the courses of bacteriology and pathology in our medical schools. (d) A knowledge of optics, that other practitioners of medicine do not require. (e) Acquaintance with methods of examination that differ radically from those employed in other branches of medical practice. (f) Skill in a series of most delicate special manipulations and operations."

His own belief is that the best method of training men and women for ophthalmic practice will begin with the preliminary education now required for entrance in the better medical colleges, including sufficient mathematics and physical optics. Then must come a general medical course which should be so remodeled as to eliminate some things that heretofore have occupied a considerable place in the curriculum. Parts of organic chemistry and materia medica that belong to the highly specialized work of the pharmacist, parts of topographical anatomy that have no general educational value and can be utilized in part only by a limited number of surgeons that do particular operations, parts of obstetrics that can be of no real interest to the medical man who does not attend obstetrical cases must be cut out of the course required of those students who have determined to make a specialty of ophthalmic practice. This will make room for the teaching of the newly discovered facts and processes of general interest, and leave in the fourth year medical course a little time for elective studies that will allow the student to develop in the direction of the life work that he intends to pursue.

Dr. Jackson further says: "On such a truly generalized and more elastic medical course should be based the systematic instruction in ophthalmology. This must include first, laboratory work in anatomy, physiology and pathology of the eye. Second, clinical work in ophthalmology, which may be taken either in a properly conducted public ophthalmic clinic, or as assistant in the private practice of an established ophthalmologist. For the best training both kinds of clinical work should be included. Of such work we must demand at least one year. It ought to be more. But the demand for one year of properly supervised work, rigidly adhered to, is a great advance over the voluntary six weeks' plan, that has heretofore been given an almost respectable standing in the estimation of the medical profession and the public.

"There must be systematic supervised reading of the literature of ophthalmology. 'Reading medicine' formerly constituted the greater part of a systematic medical course. Reading still occupies a large part of the time of the medical student, although too often it is merely cramming for quizzes or examinations. With the enormous literature of ophthalmology, both past and current, systematic reading is still of great importance; and it is worthy of careful supervision.

"Finally, the time and effort of the student can be economized by assisting him through demonstrations, quizzes or conferences; and, to a moderate extent, by lectures.

"Now this laboratory work, clinical work, reading and other methods for the study of ophthalmology should be carefully systematized and correlated by standard educational institutions. The school of ophthalmology must be a department in the university. A branch of learning so highly developed cannot be turned over entirely to the proprietary educational institution, whether that be a polyclinic or a correspondence school. A broad and liberal university spirit will endeavor to utilize both the polyclinic and the correspondence method of teaching, in opening to the student every available opportunity for self-development and improvement in his line of work. But the university must keep the supervision of the educational methods and the control of recognition of scientific attainment through proper certificates or degrees."

Dr. Jackson suggests that after completing a supervised and systematic study of ophthalmology such as outlined the student should be given a degree of Doctor of Ophthalmology, and he further recommends that the time should not be far distant when boards of medical examination and registration should require such a degree from the physician who expects to pose before the public as a specialist in ophthalmology. He rightly contends that the service of the community, the standing of ophthalmologists as a definite class of professional advisers, and their ability to secure the proper recognition even in the ranks of the medical profession have suffered greatly from the lack of provision for such a supervised systematic study as that outlined.

It is for the highest interest of the general medical profession and the public to facilitate and hasten not only a reform in ophthalmic teaching, but in the teaching of other specialties. The four and six weeks' courses in ophthalmology followed by the granting of a diploma should be abolished, and neither the medical profession nor the public should recognize as a properly qualified specialist a man whose special training has been limited to a few weeks at one of the numerous proprietary or post-graduate schools having more interest in the acquirement of fees than in affording adequate instruction, and which in no sense offers such a comprehensive and systematic training as should be reqired of every man who honestly desires to do credit to himself and his profession as a specialist in his chosen field. The question is one which should and will have greater consideration in the near future, and one that must be solved along the lines indicated if we are to approach the standard of fitness required in other branches of professional training.

EDITORIAL NOTES

West Baden has been selected as the place for the 1913 session of the Indiana State Medical Association. We are promised ample accommodations and good entertainment; but we believe that the first and foremost thing to be considered is a good but short scientific program. Let us have fewer papers, all of them good ones, and more discussion. It is an injustice to essayists and to those who are appointed or expect to enter into discussion of papers, to have a long program rushed through and but scant attention given to either papers or discussions.

Secretary Combs is responsible for the statement that the attendance at this year's session of the Indiana State Medical Association fell off about 200, and he thinks that the change in the date of the Association had considerable to do with the lessened attendance, for quite a large number of members of the Association wrote to the secretary complaining about the change in the date and stated that the changed date had rendered it impossible for them to attend. We are greatly pleased to know that the House of Delegates has fixed the date of next year's session, and that there is no probability of a change. There is absolutely no reason why a medical association should not be conducted along systematic and business-like lines, and the greatest success of our Association will depend on following such policy.

We have always maintained that the life and the success of any society depends on its secretary. We have urged the county medical societies of Indiana to be very careful in the selection of a secretary, and after getting a good secretary to keep him in office. Dr. E. M. Shanklin, of Hammond, Secretary of the Lake County Medical Society, who produced the largest gain in any county medical society in Indiana during the year 1912, spoke at the recent County Medical Society Secretaries' meeting on the subject "How to secure new members." He exhibited circular letters and explained his methods, all of which revealed the secret of his success. As Dr. Combs has said in his report of the meeting, the catalog of self evident truths enunciated by Dr. Shanklin will bear repetition. They are as follows:

"1. The most important office in the county medical society is that of secretary. 2. The hardest job in the county medical society is that of secretary. 3. The most unappreciated office in the county medical society is that of secretary. 4. A live county medical society cannot continue without a good secretary. 5. The progressive county medical society is the one that continues an efficient secretary in office. 6. The secretary must act as the clearing house for all complaints and arrange for the satisfactory adjustment of the same. Finally, show me a society whose secretary works only when prodded and I will show you a dead society."

This comes from a real live secretary, and is worth the attention of those who wonder why some medical societies are alive and others dead.

In commenting on the attempted assassination of Roosevelt, many newspapers have not lost sight of the seeming attempt on the part of the attending physicians to secure as much publicity as possible, and, as one paper says: "The Chicago doctors did not overlook any of the advertising possibilities incident to the case."

It is a little nauseating to the rank and file of the medical profession to note that some of the surgeons of national reputation, and especially those who have been highly honored by the medical profession, can resort to advertising tactics which, if followed by medical men of less reputation, would be severely condemned. We admit that occasionally a prominent medical man will find his name conspicuously featured in the daily press without his knowledge or consent, but such instances are comparatively rare. When you frequently see a well-known surgeon's picture in the daily newspapers, coupled with interviews, or histories, or a report of the doings or accomplishments of that surgeon, it is a safe guess that the surgeon has been willing to accept, even if he has not purposely sought, such exploitation of himself. This leads us to remark that a few of the very noted surgeons who find newspaper prominence very distasteful succeed in keeping their names out of the daily newspapers even when attending celebrated persons. This only goes to show that if a noted physician seeks or desires advertising through the public press he can secure it with but little effort on his part, and, on the other hand, if it is distasteful to him he can prevent it. But just as long as we look complacently on the censurable acts of the big fellows of the medical profession, let us throw the mantle of charity over the little fellow who does the same thing, and who usually comes in for the severest sort of condemnation if he deviates from the path of rectitude or professional propriety.

The Indianapolis Session, just passed, was crowned with about the usual number of successes, although at the same time it was handicapped by some regretable disadvantages. Chief among the former, undoubtedly, was the universal excellency of the scientific program. The papers were concise and instructive, the discussions were animated and elucidating, and at no time did the sessions drag. In spite of the extraneous noises, the attention of the listeners was close and sustained. This was partly due to the fact that the presiding officer was more prompt than usual in calling the meetings to order, in limiting the papers to the prescribed twenty minutes and the discussants to five minutes. In no other way could the over-crowded program have been completed as well as it was. The essayists were present at their appointed time with one exception, and the discussants as well, with the exception of a few who were courteous enough to notify the secretary in advance that they could not be there.

Of the failures, the first one in evidence was the registration which revealed a smaller attendance than that of last year (590 members). This may have been due in part to the fact that the registration was on the eighth floor of the Claypool Hotel and some members may have attended the Surgical Section on the second floor without taking the trouble to go up to the registration desk. In addition to this, the change in the date was the occasion of much confusion and prevented many from attending. The secretary received a number of letters just after September 27, inquiring about the postponement of the date. Several members stated that they had arranged to go September 27, but could not change their plans for the later date. In at least one instance, a physician actually went to Indianapolis on September 27, but could not locate the meeting. Henceforth we trust that the House of Delegates will exercise its right to set the time as well as the place of meeting in advance, as it did this year.

The following letter was recently received by Secretary Combs:

My dear Doctor: I am a member of the ———— County Medical Society and take great pride in our state Journal, and I hope that you will agree with me that it could be made of greater value to the physicians of the state if the secretaries of every county society would make a full report of its meetings. I would suggest for the benefit of the Journal, and its readers, that in the future it be made obligatory on all county secretaries to make a full report of its meetings.

Yours very fraternally,
Dr. .....

This letter is from a member of one of the live county societies in the state having about twenty-five members and holding regular meetings. Its secretary perhaps is one of those men who perennially complains, "I am at my wit's end to know what else to do to get the members to attend the meeting and to read papers." It is human nature to do better work under the stimulus of recognition and a reasonable amount of adulation. If a member reads a paper at the society's meeting, and in the next Journal he finds that this effort on his part has received the proper notice, he is much more apt to read another paper subsequently. The secretary may excuse his delinquency by thinking that what occurs in his society is of no importance to the rest of the state. That may be so, and the fact is that a member living in Lake County will probably not read the write-up of a society in the southern part of the state. The idea is to have it read by your own members, and especially those who did not attend that meeting, as it will be the best possible advertisement for a good attendance the next time. The secretary may object that it takes too much time; if so, let him be reminded that the two largest and busiest societies in the state, Marion and Allen, have had the most voluminous reports in The Journal. If that be so, however, let him have a reporter appointed whose sole duty throughout the year will be to make the monthly report to The Journal. It is a moral obligation at present, and it should be even a legal obligation, as our correspondent suggests, resting on the secretary to attend to this most important duty. In the file of The Journal from January to September, 1912, out of the possible nine numbers, Marion County has made eight reports, Kosciusko seven, St. Joseph, Allen, Marshall and Lake each five, Huntington, Delaware and Montgomery each four, Tippecanoe and Grant each three, Putnam two, and fifteen others each one, the rest of the fifty-nine other societies not even making one report in nearly a year. The remaining two numbers of The Journal will give the secretaries of these counties a chance to redeem themselves. Will you, as an individual member, advise your secretary to this effect?

DEATHS

Dr. Orville W. Hobbs, aged 64, of Dunreith, Henry County, died October 7.

Dr. Francis Corya, aged 77, died at his home in Zenas, Jennings County, October 1.

Dr. Chester H. Cass, aged 95, a retired physician, died October 4, at his home near Holton, in Ripley County.

Dr. T. C. Hunter, aged 90 years, died September 21, at his home in Kokomo. He began the study of medicine when he was 60 years old.

Dr. William R. Osborn, a veteran of the Civil War, a practitioner of Spurgeon, died at the home of his daughter in Petersburg, Sept. 8, aged 73.

Dr. Benjamin Burkett, for many years a practitioner of Warsaw, died at his home August 28, from senile debility, aged 83. Dr. Burkett was a graduate of Indiana Medical College, in 1879.

Dr. William A. Neal, aged 77, the oldest native of Elkhart, died September 25. Dr. Neal was graduated from Rush Medical College in 1857, and practiced medicine in Iowa until he became first assistant surgeon of the First Missouri Engineering Corps. Dr. Neal was in charge of the post hospital at Johnson, Tenn., in the summer of 1864, and was with Sherman in his march through Georgia. He returned to Elkhart in 1879.

NEWS, NOTES AND COMMENTS

Dr. Ralph M. Bolman, Fort Wayne, and Miss Vita McNair, Kendallville, were united in marriage September 4.

An informal reception to the students of the Indiana University School of Medicine was held at the Library of the Medical School, corner Senate Avenue and Market Street, Indianapolis, on the evening of September 28.

The series of lectures which Prof. Carl von Noorden, of Vienna, is to deliver in several American cities on "New Aspects of Diabetes, Pathology and Treatment," will be issued in book form, October 26, immediately at the close of the New York lectures, by E. B. Treat & Co., New York, who have published all his other monographs.

The New York Skin and Cancer Hospital announces that Dr. L. Duncan Bulkley will give a fourteenth series of clinical lectures on diseases of the skin in the out-patient hall of the hospital, on Wednesday afternoons, from October 30 to December 18, 1912. The course will be free to the medical profession on the presentation of their professional cards.

Since September 1, the following articles have been accepted for inclusion with New and Nonofficial Remedies:

Neosalvarsan (Victor Koechl & Co.).

Bismuth Betanaphtholate (Merck & Co.).

Staphylo-Strepto-Bacterin Mixed (H. K. Mulford Co.).

Anti-Plague Bacterin (H. K. Mulford Co.).

Slee's Glycerinated Vaccine Virus (Abbott Alkaloidal Co.).

Detre Differential Diagnostic Test (Cutter Laboratory).

Tuberculin, O. T. (Dilution Von Pirquet's Reaction) (Cutter Laboratory).

Diphtheria Antitoxin (Cutter Laboratory).

SOCIETY PROCEEDINGS

INDIANA STATE MEDICAL ASSOCIATION

INDIANAPOLIS, SESSION, OCT. 11-12, 1912

House of Delegates

First Meeting, Wednesday Evening

The House of Delegates of the Indiana State Medical Association was called to order by President Howat at the Claypool Hotel, Indianapolis, Wednesday evening, Oct. 10, 1912. The official call was read. Roll call showed 27 delegates present, with probably fifteen more coming in later.

Dr. Howat, president of the Association, gave his address, which contained a number of specific recommendations, particularly concerning the election of section officers, appointment of committees, and the management of the finances of the association.

Dr. H. H. Thompson, of Noblesville, moved that the president's address be referred to a committee of three, to be appointed by the chair, for consideration and subsequent report thereon. Seconded and carried. Chair appointed Drs. H. H. Thompson, of Noblesville, W. F. Carver, of Albion, and F. H. Jett, of Terre Haute.

Dr. Alexander R. Craig, Secretary of the American Medical Association, was introduced and spoke briefly concerning organization work in Indiana.

The next business at hand being the report of the committees, Dr. A. M. Hayden moved, and the motion prevailed, that as the reports have been published in full in the September number of The Journal, that the reading of these reports be omitted with the exception of parts containing specific recommendations.

Committee on Public Policy and Legislation.—Report affirmed and Committee ordered to prepare a bill embodying their recommendations.

Committee on State Medicine.—A discussion ensued concerning the wisdom of the recommendation of the committee to suspend a member of the Association who testifies for the plaintiff in a case defended by the Medical Defense Committee of the Association, the argument being made that such action would be in the nature of a threat, would not be compatible with common ethical rules governing evidence, and would be in

violation of the conspiracy law. Dr. A. F. Knoefel, of Linton, moved, and it was seconded and carried, that this report be *not* accepted, but that it be referred back to the committee for them to revise and clarify and present to the House of Delegates at the next meeting.

Committee on Medical Education.—Moved, seconded and carried that the report be adopted in its entirety as printed.

Committee on Tuberculosis.—Moved, seconded and carried that the report be adopted as printed.

Committee on Pathology.—Moved, seconded and carried that the report of the committee be received. Dr. F. B. Wynn of Indianapolis moved the appropriation of $200 for the purpose of caring for and conducting a scientific exhibit for the next annual session. Seconded and carried.

Committee on Venereal Diseases.—Motion was made and seconded to adopt the report of the committee. An amendment was offered and seconded that the report be referred back to the committee for revision, and particularly revision of the last paragraph of the report. Amendment lost. Original motion carried, and the report was adopted (vote 26-13).

Committee on Inebriety.—Report adopted by motion.

Committee on Compulsory Ventilation.—Report adopted by motion.

Committee on Necrology.—Report adopted and a vote of thanks tendered to Dr. G. W. H. Kemper for his valuable services as chairman.

Committee on Conservation of Vision.—Original copy of report lost after passing out of the hands of the chairman, but he agreed to prepare it again for presentation at the Friday morning meeting.

Committee on Post-Graduate Work and Research.—Report adopted.

Committee on Medical Defense.—Report adopted.

The committee appointed to consider the recommendations in the president's address brought in the following report:

"We, the committee to whom has been referred the address of the president, submit the following report: We recommend that Section 5 of Chapter 7 of the By-Laws be amended to read as follows: The Council shall provide for and superintend all publications of the Association, and shall have authority to appoint an editor and such assistants as it deems necessary, and fix the amount of their salaries. The accounts of the treasurer and secretary, and other agents of this association, shall be audited annually by an auditing committee appointed by the president, which committee shall report to the House of Delegates, and the report shall also specify the character and cost, receipts and expenditures of all the publications of the Association, during the year, and the amount of other property belonging to the Association, under its control, with such suggestions as it may deem necessary. In the event of a vacancy in the office of the secretary or treasurer, the council shall fill the vacancy until the next annual election.

We further offer the following resolution: Resolved, that each component section of this Association that now exists or may exist in the future be empowered to select its own chairman and secretary, and that such selection of officers shall be the first order of business of such component sections.

H. H. Thompson,
F. H. Jett,
W. F. Carver,
Committee.

On motion, duly seconded and carried, this report was adopted.

Dr. A. F. Knoefel, of Linton, introduced the following resolution:

Whereas, It is an injustice and oftentimes an unnecessary hardship for the medical profession in the cities and towns of Indiana, where the Indiana State Medical Association from time to time holds its annual sessions, to be compelled or expected to pay any of the expenses connected with the scientific or business meetings of the Association, be it therefore

Resolved, That it is the sense of this House of Delegates that hereafter the Indiana State Medical Association shall pay all of the legitimate expenses of each annual session, and that any income from exhibition privileges or otherwise obtained be turned into the general treasury for the purpose of aiding in meeting the expenses of the Association.

A motion to adopt this resolution prevailed.

Adjourned to meet Friday morning at 8:30.

Chas. N. Combs, Secretary.

Second Meeting, Friday Morning

Meeting was called to order by President Howat. The roll call showed 48 delegates present at the beginning of the meeting, and increasing to 65 before the meeting adjourned. The first order of business was the election of officers which resulted as follows:

President: A. C. Kimberlin, Indianapolis.
First Vice-President, J. Guy Hoover, Boonville.
Second Vice-President, V. G. Poland, Muncie.
Third Vice-President, J. P. Ward, Vevay.
Secretary, Chas. N. Combs, Terre Haute.
Treasurer, David W. Stevenson, Richmond.

Delegates to the American Medical Association.—For two years: F. B. Wynn, Indianapolis; C. S. Bond, Richmond. Alternates: Miles F. Porter, Fort Wayne, and J. M. Dinnen, Fort Wayne.

Dr. Geo. D. Kahlo's time expiring as a member of the Committee on Medical Defense, Dr. J. Rilus Eastman, Indianapolis, was elected to succeed him.

The amendment to Section 5 of Chapter 7 of the By-Laws having been read at the preceding meeting and allowed to lay over for one day, was reread, and on motion, properly put and carried, was adopted.

The resolution concerning section officers was adopted, carrying with it the understanding that in the future members when registering at the annual session shall designate to which section, and one only, they wish to belong. The president immediately sent word to the different sections, then in session, requesting them to elect officers and report at once. Result:

Surgical Section: Chairman, M. A. Boor, Terre Haute; secretary, T. B. Eastman, Indianapolis.

Medical Section: Chairman, F. B. Wynn, Indianapolis; secretary, Chas. G. Beall, Ft. Wayne.

Eye, Ear, Nose and Throat Section: Chairman, E. DeWolfe Wales, Indianapolis; secretary, J. H. Black, Lebanon.

Dr. G. W. H. Kemper, of Muncie, introduced the following resolution which was unanimously adopted:

Resolved, 1. That the Indiana State Medical Association heartily endorses the action of the State Centennial Committee in planning for an adequate celebration of the state's centennial in 1916 along educational and historical lines. 2. That it is our belief and desire that the medical profession of Indiana should play a creditable part in this laudible undertaking. 3. That in the furtherance of these

ends a committee of three be appointed, after careful deliberation of the president, the same to cooperate with the State Centennial Committee in so far as the celebration may relate to medicine.

Dr. Frank A. Morrison, chairman of the Committee on State Medicine, to whom was referred his original report for revision, sent a note to the meeting declining to make any change in the report. Moved and carried that the report be referred to the Committee on State Medicine for further consideration and report at the next session.

The report of the Committee on Conservation of Vision (printed in this number of The Journal) was read and adopted.

The president then spoke of the misinterpretation placed on the report of the Committee on Venereal Diseases by the Indianapolis press, and a discussion ensued, after which the following resolution of Dr. W. N. Wishard was adopted.

Whereas, There is a misapprehension as to the attitude of the House of Delegates on some points in the report of the Committee on the Prevention of Venereal Diseases, therefore be it

Resolved, That it is the belief of the House of Delegates that neither segregation, licensing or any other plan has been shown to satisfactorily solve the question of the control of venereal diseases, and the House of Delegates declines to approve any plan yet suggested as capable of solving this difficult question; also,

Resolved, That we deem it a most serious duty on the part of the medical profession to devote its best efforts to the study of the ways and means that will best solve the perplexing and vital question of control and extermination of the social evil and venereal diseases.

A further resolution, presented by Dr. B. Van Sweringen, of Fort Wayne, was adopted, reading as follows:

Whereas, There has arisen in the minds of many a misapprehension as to the attitude of this body concerning the question of the licensure of prostitutes and prostitution, due to the adoption of the report of the Committee on the Prevention of the Spread of Venereal Diseases, which report recommends a continuance of the efforts looking toward prevention, "even under license, if necessary;" and

Whereas, It seems expedient to correct any such misapprehension, and

Whereas, The problems involved in the case vary with the locality, therefore be it

Resolved, By the House of Delegates of the Indiana State Medical Association, that it is the sense of this body that venereal diseases should be regarded by physicians and boards of health in the same light as are other infectious and contagious diseases, and that the same efforts should be adopted to restrict their spread, namely, treatment and quarantine. Be it further

Resolved, That it is the sense of this body that anyone found afflicted with a communicable venereal disease, and who is engaged in any way in transmitting, whether knowingly or not, his or her disease to others, should be detained, voluntarily or otherwise, in a hospital until such time as his or her release and association with other men, women and children will not be followed by further spread of the disease.

Dr. A. F. Knoefel, of Linton, presented the following resolution:

Whereas, The Indianapolis *Sun* and certain other newspapers throughout the state have adopted the plan of better journalism whereby all advertisements from patent medicine proprietors, quacks, charlatans and unethical practitioners of medicine or practitioners of "isms" or "pathies" will be henceforth refused; therefore, be it

Resolved, That the Indiana State Medical Association endorses such action and commends it to the general press of the State of Indiana.

The following district societies reported the election of their respective councilors whose terms of office expired this year: Second District, A. F. Knoefel, Eighth District, G. W. H. Kemper, Muncie; and Eleventh District, G. G. Eckhart, Marion.

The House of Delegates concurred in the selection of these councilors and the same will hold office for the ensuing three years.

Moved and carried that all bills incurred by this Association, after being audited and approved by the Council, shall be paid by the treasurer after the order has been signed by the president and countersigned by the secretary.

The last order of business was the selection of time and place of meeting, which was decided to be West Baden, Sept. 25 and 26, 1913. Adjournment.

C. N. Combs, Secretary.

REPORT OF COMMITTEE ON CONSERVATION OF VISION

The last legislature passed an excellent law for the prevention of blindness by ophthalmia neonatorum, thanks to the work of a committee representing the Indiana State Medical Association, aided by officers and members, especially by Dr. Hurty and the doctors in the Senate and House of Representatives. Now we need only the services of a follow-up nurse or field agent to make this the best law of its kind in the United States.

It is not thought advisable for this committee to make definite recommendations for official action until more definite and detailed plans of action have been formulated and promulgated by the National Association for the Conservation of Vision, and the Committee of the American Medical Association upon this subject, as it is our purpose and duty to cooperate with them in every way possible.

Among the problems remaining are the prevention of phlyctenular keratitis, so common in little children and usually tubercular; of trachoma, rare in this country except as brought in by foreigners; of eyestrain and myopia in the public schools; of eye injuries by industrial accidents, and some other things having a general bearing on the subject.

It will thus be seen that this work is intimately associated with the fight against the white plague as well as that against the black plague, syphilis being the cause of many serious eye troubles, with immigration, with general hygiene and sanitation, with school inspections, and with legislation requiring the use of safety appliances in connection with machinery, one of the most important branches of the subject and one in which good work has already been done in some places.

Our Association committee has particularly to do with this work among the profession, while another committee, appointed by the president of the National Association on Conservation of Vision, has the special work among the laity, this committee being headed by Dr. G. F. Keiper. The two committees are expected to cooperate in efforts to secure necessary legislation. Members of the Association could aid the work by joining the National Association as well as by spreading information upon these important matters.

F. C. Heath,
S. Burrage,
E. M. Shanklin,
E. J. Lent,
F. A. Chenoweth,
Committee.

The Council

Thursday, October 10

The first meeting of the Council of the Indiana State Medical Association, Indianapolis session, Oct. 10-12, 1912, was held Thursday noon at Dr. Wishard's office, adjourning at once to the Columbia Club where the business was transacted, after partaking of a luncheon provided by Dr. Wishard. The following members were

present: Drs. Knoefel, Leach, Stemm, Weinstein, Hougland, Wishard, Kemper, Williams, Osborn, Eckhart, Van Sweringen, McDonald, Howat, Bulson and Combs. Visitors, Drs. Edwin Walker of Evansville and W. H. Wathen, Louisville.

The minutes of the preceding meeting were read and approved.

Dr. Amelia Keller, together with some representatives of the ladies' clubs of Indianapolis, were present and protested against the action of the House of Delegates in adopting the report of the Committee on the Prevention of Venereal Diseases. President Wishard stated that he was glad to give them a hearing but that the Council could not act at this time, adding that perhaps explanatory resolutions might be introduced at the last meeting of the House of Delegates.

REPORT OF COMMITTEES

The resolution on elections was called for and Dr. Knoefel, the chairman, explained his failure to submit a report as he thought Dr. Howat was to have had the privilege of wording this resolution. He, therefore, made a motion, which was carried, that a new committee be appointed in reference to pernicious activity in politics in the Indiana State Medical Association, to submit a report at the first meeting in 1913. The Chair appointed Drs. Knoefel, Kemper and McDonald.

It was moved and carried to approve of the action of the House of Delegates in appropriating the sum of $200 for the purpose of providing a pathologic exhibit for next year.

The following resolution, introduced by Dr. Knoefel, was adopted:

WHEREAS, The Indianapolis *Sun* and certain other newspapers throughout the state have adopted the plan of better journalism whereby all advertisements from patent medicine proprietors, quacks, charlatans and unethical practitioners of medicine, or practitioners of "isms" or "pathies," will be henceforth refused; therefore, be it

Resolved, That the Indiana State Medical Association endorses such action and commends it to the general press of the State of Indiana.

Adjourned. CHARLES N. COMBS, Secretary.

Friday, October 11

The final meeting of the Council was held Friday, Oct. 11, 1912, with the following members answering to roll call: Drs. Wishard, Knoefel, Leach, Stemm, Weinstein, Hougland, Kemper, Osborn, Eckhart, Van Sweringen, Bulson, Kimberlin and Combs.

A motion was carried to have the Chair appoint an auditing committee for the current bills on hand. Dr. Wishard appointed Drs. Stemm, Kemper and Leach, who approved the following bills and they were ordered paid:

Dr. Knoefel, councillor's expenses	$ 9.60
Dr. Leach, councillor's expenses	5.50
Dr. Stemm, councillor's expenses	8.25
Dr. Weinstein, councillor's expenses	3.00
Dr. Hougland, councillor's expenses	7.85
Dr. Kemper, councillor's expenses	2.75
Dr. Williams, councillor's expenses	11.00
Dr. Osborn, councillor's expenses	19.79
Dr. Eckhart, councillor's expenses	7.20
Dr. Van Sweringen, councillor's expenses	15.00
Dr. Combs, secretary's expenses	66.85
Dr. Kemper, committee on necrology	10.00
Dr. Keiper, printing E. E. N. and T. Section	3.25
Dr. Neu, badges Indianapolis session	23.10
	$193.14

Acting in accordance with the recent revision of the by-laws, the Chair appointed a standing auditing committee of the Council consisting of Drs. Van Sweringen and Williams. A motion prevailed to add as chairman of that committee Dr. Wishard. This committee was authorized to audit bills at any time throughout the year, forward the voucher to the president to be signed, and the secretary to be countersigned, on which order the treasurer will pay them. It was understood, however, that the 75 cents per member for THE JOURNAL, and the 75 cents for the medical defense fund were fixed apportionments and would be remitted by the treasurer automatically as the dues were received.

An instance was reported in which physicians living near the county line for reasons of convenience wished to join and attend the contiguous county society, but could not get the required permission from their own county society. It was advised that such members join the society in their own county, having their state dues sent in from that county, and then by paying a small fee join the contiguous county society as associate members, thus giving them the privilege of taking part in the meetings.

Dr. D. C. Peyton, of the Indiana Reformatory, was a visitor and he explained the inauguration of a new line of investigation at his institution, whereupon the Council adopted the following resolution:

Resolved, That the Council of the Indiana State Medical Association approves and endorses any movement leading to the establishment of the psychological study of the inmates of state institutions for the care of mental defectives and criminals and believes the effort looking to the mental measurements of the inmates to be most essential.

Dr. W. N. Wishard was reelected as chairman of the Council.

Adjourned. CHARLES N. COMBS, Secretary.

County Secretaries' Meeting

The Fourth Annual Conference of the County Secretaries convened at 3 p. m., Wednesday, October 9, with about twenty-five in attendance.

Dr. W. F. Howat, president of the Association, who was the first on the program, reviewed the activities of the Association as he had observed them while visiting the various county and district societies.

Dr. E. M. Shanklin, of Hammond, secretary of the Lake County Society, who produced the largest gain in membership of any county society in the state for 1912, was entitled to speak with authority on the subject of "How to Secure New Members," and his remarks as well as his exhibit of circular letters revealed the secret of his success. His catalog of self-evident truths will bear repetition. "First, the most important office in the county medical society is that of secretary; second, the hardest job in the county medical society is that of secretary; third, the most unappreciated office of the county medical society is that of secretary; fourth, a live county medical society cannot continue without a good secretary; fifth, the progressive county medical society is the one that continues an efficient secretary in office; sixth, the secretary must act as the clearing house for all complaints and arrange for the adjustment of the same: finally, show me a society whose secretary works only when prodded and I will show you a dead society." Apparently Lake County has considered it a wise investment to spend money on frequent circular letters sent to each member.

Dr. R. C. Shanklin, South Bend, secretary of the St. Joseph County Medical Society, told of the discouragements attending the four years' campaign for a County Society Library, which finally materialized in a collection of over 1,000 books. It was financed by fifty-three men subscribing $10 each, while the city library donated the room and an equal sum of money.

Dr. Alex. R. Craig of Chicago, secretary of the American Medical Association, spoke of the importance of the secretary's work and the necessity for an enthusiastic support of the ideals of the state and national associations. Following this there was an informal round table discussion by Drs. Fair, McClintic, Ehrich, Miller and Carver. Drs. Van Sweringen, Tucker, Nesbitt and Heath, who were visitors, were accorded the privilege of the floor.

Chas. N. Combs, Secretary.

FORT WAYNE MEDICAL SOCIETY

Meeting of May 21, 1912

Society met in regular session at the assembly room with 18 members present. Minutes of previous meeting read and approved.

Dr. G. Van Sweringen reported a case of acute acidosis with kidney failure and uremia.

Clinical cases. Dr. Kimmell reported a case of a female who presented three distinct tumor masses extending from the clavicle to the tip of the mastoid. On operation they were found to be adherent to the periosteum. Report of section of gland was metastatic carcinoma. It seems rather unusual for tumors to appear at this point.

Discussion. Dr. Rosenthal: Has a patient, male, 46 years of age, who has a similar growth involving the submaxillary glands on both sides. No direct lymph connection. Resection of gland showed growth infiltrated into the periosteum beyond. Gives a history of cancer of the lip. Patient presents a mild Wassermann reaction. I believe this case to be one of syphilis. The growth on the lip was the primary lesion. Patient was put on mercury and potassium iodid and became salivated. The specimens were preserved in alcohol and they were not so favorable for spirochete examination.

Dr. Porter, Jr.: Both sections of these tumors were sent to the Chicago laboratory and both cases were returned "carcinoma."

Dr. Rhamy: One section showed inflammatory condition, the other cancer.

Dr. Kimmel, closing: None of the tumors which I removed had anything in common with malignancy. They were friable like hyaline cartilage, and no connection with the lymphatics. Why they should be primary cancer I cannot understand.

Dr. Kimmel reported a second case. Tumor of the neck in a male 32 years of age. Gave ¼ minim Coley's fluid which was followed by violent chills and delirium. Spasm of muscles. Patient became pulseless. This condition lasted two hours and he recovered. Had subnormal temperature before the injection.

Dr. Kimmel read a paper on "Abscess of the Liver."

Discussion. Dr. Rosenthal: Very little is to be added to Dr. Kimmel's paper. He has covered the more important points. As far as the liver itself is concerned we know little about its functions. Most of the cases of liver abscess I have seen are secondary pyothorax. Have seen one case of amebic abscess which gave no history of dysentery or of gastro-intestinal disorder. Have had a case of liver abscess due to cholecystitis. The gall-bladder gave way and formed an abscess. Found a gall-stone at the bottom of the abscess cavity. Can remember two cases of liver abscess following the so-called bloodless operation for hemorrhoids. We not infrequently see abscess of the liver following appendicitis. These cases are not always following the suppurative variety but in the comparatively mild cases. Sulphrenic abscess sometimes follows appendicular suppuration.

Dr. B. Van Sweringen: Have seen very few abscesses of the liver except those which are secondary to the general infection. Most of these were at autopsy. One case in a male developed an appendicular abscess which was opened and drained. Got well. Fourteen years following, died of abscess of the liver, which was proved by autopsy. This subject would, of course, be of more interest if we lived in tropical countries.

Dr. Kimmel, closing: One point in prognosis is the tendency to become chronic. It may be drained and apparently well but show infection later, even years after.

Bill of C. J. Lose for $2.50 allowed.

Board of Censors reported on the Noah Zehr matter that Dr. Zehr said he had sent in his resignation within a week of his connection with the school of chiropractic. Board recommended that the society accept Dr. Zehr's resignation on the ground that the charges are not sustained, and that Dr. Zehr claims that he is not practicing chirophactic but studying it and teaching the primary branches in the school. Motion by Dr. Porter that the report of the Board of Censors be not accepted. Carried. Motion carried that the matter of the chiropractic college and the connection of Dr. Noah Zehr thereto be referred to the committee on public health and legislation.

Adjourned. G. Van Sweringen, Secretary.

Meeting of May 28

Society met in regular session in assembly room with 14 members present.

Clinical cases. Dr. C. C. Grandy: Female, aged 26 years. Was always well up to one week ago. Was cleaning house in the morning when she felt a sudden acute pain in the epigastrium. One-fourth grain morphin given for her relief. Three days later sent to hospital. Upper half of abdomen hard and rigid. Diagnosis rested between stomach, pancreas and spleen. Operation revealed a perforated gastric ulcer; whipped over and abdomen drained. Recovery prompt.

Dr. Grandy read a paper on "The Use of Autogenous Vaccines in the Treatment of Disease." This paper consisted in the report of cases of all kinds treated with autogenous vaccines.

Discussion. Dr. Porter, Jr.: In considering the question of vaccine treatment you are never quite sure just which treatment does the most work. He reported a case of streptococcic puerperal infection of six weeks' duration which failed to yield to any method of treatment. Was relieved by several injections of autogenous vaccine. Judging from the literature, there seems to be no doubt of the value of vaccines. The more chronic the infection the better the results. Generally vaccines are used in too small doses at too infrequent intervals. The cases of pernicious anemia under the care of Dr. McCaskey showing streptococcic infection improved under the use of vaccine.

Dr. Metcalf: I have one case of chronic pneumococcic infection. As yet it is a little too early to report. Cough and expectoration are profuse. After the third injection shows marked improvement.

Dr. Beall: The general concensus of opinion of vaccines in acute infection is that they are contra-indicated. Rosseau has used them in pneumonia with some success. Theoretically it does not seem reasonable to add to a toxemia which is already present. His results

would seem to indicate that there may be some benefit by using vaccine in acute infection.

Dr. Porter: How long did you treat the fistula following suppurating appendix operation?

Dr. Grandy: Two years in one case.

Dr. Weaver: I would like to ask if those cases of pyelocystitis in children yielded to treatment rapidly. Dr. Morse claims he has never seen any greater improvement under vaccine than in the alkaline treatment of cystitis. One reason why gonorrhea does not yield to vaccine is because it is so difficult to grow individual cultures, and stock vaccines do not contain the same strain. I do not believe that anyone would attempt to treat pulmonary tuberculosis without control of mixed infection. Shamberg's last edition in a résumé on the treatment of disease with vaccines, says that there are only two conditions which yield to vaccine, they are furunculosis and carbunculosis.

Dr. Beall: The use of vaccines in the infections complicating typhoid fever have given good results. Have only had one experience in the treatment of this condition in which the vaccines were used, and it was of marked benefit.

Dr. Weaver: We are all more or less familiar with Dr. McCaskey's results in the use of antistreptococcic serum and vaccines. The results of Dr. McCaskey are very good in the cases in which they were used. The prophylactic use of typhoid vaccine is undoubtedly established by the results obtained at Ladysmith during the Boer war.

Motion carried that a committee be appointed, consisting of president and secretary to secure a permanent meeting place for the society for the year.

Adjourned. G. Van Sweringen, Secretary.

Meeting of June 4

Meeting postponed on account of the session of the American Medical Association.

Meeting of June 11

Society met in regular session in the assembly room with 12 members present. Minutes of preceding meeting dispensed with.

Dr. Mary Whery read a paper on "The Child and the Doctor."

Dr. Beall, in opening the discussion, said that usually the association between doctor and child should be more intimate than it is at present. Thinks that the visiting nurse should be more intimately associated in these cases.

Dr. Smith: If it be true that the poor breed more children than the wealthy, we must not forget that the education, both physical and mental, should not be lost sight of.

Dr. Porter: This paper deals with the larger and broader relation of the physician to the community. Dr. Jacobi touched on one of the very important points when he said that many babies were dying because they were artificially fed. Most mothers could and should nurse their children. The presence of some infections does not prevent the child from nursing but gives it a sort of antitoxin naturally acquired which we might be compelled to give artificially. I have a good deal more sympathy with the plan to teach parents to take care of their own children than to find homes for children in which this care can be had.

Dr. Weaver: I should like to enlarge on the remarks of Dr. Smith. Children born of American mothers are less than two per mother. The nation is fast becoming the nation of the children of the immigrant. We then must provide institutions for the education of children of foreign birth. I do not think we can bend our efforts in any better way than to have mothers nurse their own children.

Dr. Glock reported two cases, one of cerebral gummata and the other of carcinoma of the postpharyngeal wall.

Discussion. Dr. Porter: Years ago I stopped giving potassium iodid in ascending doses because of its unpleasant symptoms when given that way, but now start with large doses and give it over a period of days and sometimes months.

Announced that it has been over six weeks since committee filed charges against Dr. Zehr. Motion made that Dr. Zehr be expelled from this society for conduct not becoming a member. Carried by rising vote. Motion carried that a committee of three be appointed to arrange for the annual outing. President appointed Drs. Porter, Beall and the secretary.

Adjourned. G. Van Sweringen, Secretary.

Meeting of June 18

Society met in regular session in assembly room. In the absence of Dr. Van Sweringen, Dr. C. C. Grandy was elected secretary pro tem.

Dr. Duemling reported a case of tubal pregnancy. Patient last menstruated eleven months ago. Was considered normal pregnancy until five months later when she had severe pain in abdomen. Sent to hospital for a probable ruptured ectopic gestation. Was watched for several days and sent home. Was not seen again until four days ago. Was then examined again and the diagnosis of multilocular tumor was made. Operated and tumor extirpated. Patient doing well.

Dr. Beall read a paper on "The Use of Typhoid Vaccine in the Prevention of Typhoid Fever."

Paper discussed by Drs. Porter and C. G. Grandy.

The committee appointed on the annual outing reported that it could be held at Robison Park, and that a baseball game be played, followed by supper. Report received.

Dr. B. Van Sweringen made motion that committee have constitution and by-laws of society reprinted. Carried.

Adjourned. C. C. Grandy, Secretary pro tem.

Meeting of September 3

Meeting called to order by president. Minutes of previous meeting read and approved. Sixteen members present.

Clinical cases. Dr. Rawles reported three cases, (1) primary carcinoma of the gall-bladder, and exhibited specimen; (2) suppurative appendicitis with pain localized in left side of abdomen; (3) case history of ruptured appendix with localized abscess. Operation and recovery.

Discussion. Dr. Porter: The first case is very interesting. I rise to speak on the etiologic relationship between gall-stones and cancer of the gall-bladder. The first thing produced in gall-stone disease is a multiplication of crypts and cells of the mucous membrane of the gall-bladder. One of these follicles is isolated and after a time they begin to multiply and become carcinomatous cells. This isolation of normal cells is the precancerous stage of malignant gall-bladder. The same thing occurs in the stomach and breast. The better term for these precancerous cells is potential cancer. If we are to cure these cases we must remove

the potential cancer or precancerous stage. Years ago I pointed out this fact that we were afraid of hemorrhage from gall-bladder operations, but nothing else was feared. I am now more afraid of the kidneys in this disease owing to the prolonged jaundice which produces nephritis, coma and death.

Dr. E. Don Smith: I saw the first case referred to by Dr. Rawles several times for attacks of dysentery, but no symptoms of a condition higher up in the abdomen were present.

Dr. Rawles, closing: Have had two other cases of abdominal cancer; one died of hiccoughs which were absolutely incontrollable.

Dr. E. Don Smith read a paper on "Follicular Tonsillitis," in which he took up the anatomy of the tonsils, the relation of tonsillitis to rheumatism, and advocated the microscopic examination of every case of sore throat. Many cases of simple tonsillitis are contagious and many families are infected. Would isolate every case of tonsillitis. Advised removal of the tonsil in cases that suffer repeated attacks of tonsillitis; also in children with enlarged tonsils and adenoids.

Discussion. Dr. Glock: The material which is sometimes expelled from the tonsil is truly calcareous; so-called tonsil lith. Referring to the bacteria present in tonsils, no one bacterium can be blamed for all of the cases. The streptococcus is the most frequent in the contagious form of tonsillitis. No treatment in my opinion can compare with a 60 to 90 per cent. silver nitrate solution swabbed over the tonsil. One application is usually sufficient. Twenty-five per cent. guaiacol in olive oil is the next best application. A gargle of peroxid does a lot to cleanse out the crypts. If the infection is a streptococcus there is danger of acute rheumatism.

Dr. Studer: Nephritis frequently follows acute tonsillitis.

Dr. Rawles asked if any member of the society has had any experience with rheumatic phylacogen.

Dr. Porter: One word in regard to the treatment of infections of the tonsils. When I began practice the use of strong silver nitrate was in vogue. I became thoroughly convinced from a long wide experience that to let throats alone as far as local treatment is concerned was the best policy.

Dr. Glock: It has been decided that a low grade of streptococcus infection is responsible for rheumatism. There are many reasons for removal of the tonsils, perhaps first and foremost is the effect of enlarged tonsils on the growth of the child.

Dr. Rawles: Have had one experience. A boy with follicular tonsillitis became extremely septic, developed an endocarditis and died.

Dr. Weaver: One of the most important things in the treatment is rest in bed. Tonsillitis is third in point of frequency in the production of endocarditis. This summer I saw three cases of pneumococcic sore throat. If there is any application that has appealed to me, it is Loeffler's solution. I think Dr. Studer's remark is pertinent. The large series of cases treated with salicylate does not show any more benefit so far as the prevention of endocarditis is concerned than does rest in bed.

Dr. Smith closed the discussion.

Bill of Gladys Miller of $12.85 was allowed. Application of Dr. Robert K. Schlosser received and referred to board of censors.

Adjourned. G. Van Sweringen, Secretary.

Meeting of September 10

Society met in regular session in the assembly room with 18 members present. Minutes of previous meeting read and approved.

Dr. Weaver presented case for diagnosis of paroxysmal dyspnea. Patient, boy aged 10; weight, 57 pounds; American born; waif; family history unknown. Only previous illness intensely sore arm with vaccination several years ago. Appetite fair; slept well previous to present complaint; bowel function normal. Symptoms, Aug. 9, 1912: Forty-two hours previously began suffering intense dyspnea and air hunger, extremities cold, with numbness in hands. Some pain in abdomen without localization of pain, tenderness or rigidity on examination. Evening temperature 96, pulse 107, respiration 24. Urine, specific gravity 1.003, no albumin nor sugar, many urates and phosphates. Blood: hemoglobin, 95 per cent.; reds and whites normal; differential, polynuclears 32, large lymphocytes 7, small lymphocytes 56, transitionals 3, eosinophils 2. Examination: rather slender, fairly well-nourished boy; pupils react to light and accommodation; mouth and teeth negative; tonsils not markedly enlarged; all superficial lymph-nodes slightly enlarged; chest and abdomen negative except for slight cardiac arhythmia; all superficial reflexes negative; Romberg negative; no Wassermann made. Von Pirquet test negative.

Windows opened widely, room darkened, patient fell asleep and pulse dropped to 70. No more dyspneic attacks in next twenty-four hours, but two attacks, not so severe, in second twenty-four hours. Slight epigastric distress but no localized findings. August 14, no more attacks of dyspnea. Fluoroscopic examination negative except for slight increase in left mediastinal shadow above heart; no thymus visible. August 20, has only complained of shortness of breath once and that when in crowded car. September 3, temperature 98.6, pulse 93; still complains of dyspnea and palpitation on slightest exertion. Nervousness accompanies concentration as in writing, and father says this was first noted during close of school last spring. Weight to-day 64¼ pounds. Out-door sleeping, tonics and an abundance of milk, cream and eggs being pursued.

Discussion. Dr. Glock: At times swelling of the turbinates will block up the superior meatus of the nose, obstructing the passage of air. This space contains the nerve supply which interfered with will produce air hunger or asthma.

Dr. Rhamy: I see this boy has an enlarged thyroid. I have seen a case in an adult in which the specimen of blood showed 60 per cent. lymphocytes. I was about to make a diagnosis of lymphatic leukemia. The next test of the blood showed 30 per cent. lymphocytes. Several examinations showed a decreased lymphocyte count. Patient finally developed exophthalmic goiter. When the goiter was established the leukocyte count went back to normal.

Dr. Porter thinks that a decided increase in the thyroid gland is present in this case. A tachycardia, accentuated second sound and systolic murmur are present. The character of his dyspnea is not cardiac in nature. If placed under iodin or the thyroid test the diagnosis will be certain.

Dr. Beall: The only way exophthalmic goiter can be ruled out is as follows: It does not seem that if this condition is due to hyperthyroidism it would be so limited in its nature. The boy has everything which coincides with a diagnosis of status lymphaticus, that

is the blood-picture. the goiter and some dulness over upper border of sternum. A fluoroscopic examination does not always show small persistent thymus masses. I feel that a von Pirquet either positive or negative is of value. If positive, it means tuberculosis; if negative, it rules it out completely.

Dr. Weaver. closing: The tachycardia in this case is not constant. More likely to have bradycardia. Has never been sick that his parents know of. The pressure of enlarged bronchial glands might be responsible for the cardiac murmur. I do not ascribe much importance to the negative von Pirquet in this case. Failure may be due to faulty technic.

Dr. W. O. Gross reported a case of chronic albuminuria with hyaline and granular casts. Patient. man aged 30 years. unmarried. Father and mother both living; mother had kidney disease. Had severe fall during his second year followed by unconsciousness. Has had measles (suppressed). mumps, tonsillitis. diphtheria and a severe attack of influenza in 1890. Luetic infection ruled out. First complained of a fulness in head: sharp shooting pains in temples; some gastro-intestinal irritation; severe pains in lumbar and sacral regions; tongue constantly coated: appetite good; sleeps soundly: has recently had some involuntary twitching of nerves. Has been treated by specialists for vision and supposed catarrhal conditions of ears and upper air passages. Urinalyses made at weekly intervals show a specific gravity varying from 1.005 to 1.010. Albumin and hyaline casts. Amount of albumin ranges from a mere trace to 0.75 per cent. by weight. Never entirely free. No cardiac hypertrophy nor disturbance of compensation present: no evidence of edema nor anasarca. Most constant symptom an expansion pressure in the head, not unlike the feeling of being suspended by the feet. causing a rush of blood to the head. With this feeling comes on an attack of vertigo and staggering gait; symptoms intensified in hot weather.

Discussion. Dr. Rhamy: I think observations of blood-pressure would throw light on this case.

Dr. Porter presented a case report on suppurative peritonitis from other than perforative lesions.

Dr. J. E. McArdle reported case of malaria in an infant 6 weeks old. with autopsy findings. Mother aged 27, second child. During first six months of pregnancy lived in southern Mississippi and had malaria. chills and fever every other day; no treatment. Came here and continued having chills until she took two doses of quinin which cured her. This was in seventh month. Labor normal and child gained until third week when it began to have chills and fever; mother states these were characteristic of those she had. Babe seen at fourth week: fairly well nourished; no rise in temperature: blood examination showed no plasmodia; leukocyte count 10,000; treatment. 1 gr. quinin bisulphate three times a day. Babe not seen again until day of its death two weeks later. Mother states that it continued to have fever and chills every other day regularly. having one the morning it died. Autopsy findings showed spleen greatly enlarged. weighing 70 grams (a normal spleen in infant 6 weeks old weighing about 10 grams): other organs normal: urine showed slight trace of albumin. many epithelial cells and few colon bacilli. Section of spleen showed considerable pigmentation and beginning young connective tissue cells. Malpighian bodies indistinct.

In reviewing the literature. authors differ on the question as to whether the placenta acts as an efficient filter against bacteria and parasites. William's "Obstetrics" says that transmission occurs but rarely and usually only in connection with some distinct lesion of the placenta. Sabella, an Italian author, says that it has been clearly demonstrated that a number of parasites are passed through the placenta to the fetus. but that this has not been (up to April. 1911) proven of the plasmodia. In the September number of *Progressive Medicine*, Davis says: "The transmission of malarial intoxication from mother to fetus is clearly established. Malarial intoxication of maternal origin can be clinically divided into congenital malarial intoxication and hereditary; congenital variety is embryonal or fetal, in proportion as it is transmitted from the mother or undergoes development in the embryo or fetus. In fetal malaria characteristic organisms can be demonstrated from blood of fetus, and clinically one can observe in the fetus during pregnancy characteristic manifestations of malarial fever. Hereditary malarial intoxication may manifest itself after birth in the acute form, in a chronic form. or a latent intoxication. The last variety can be demonstrated by a microscopic study. as the symptoms often develop some months after birth. very gradually. without acute attacks. Tertian and quartan forms are those most often transmitted from mother to fetus. In cases of malarial intoxication. with repeated attacks not yielding to quinin. transmission from mother to child does not always take place. This phenomenon more frequent in milder cases. When malaria develops during last three months of pregnancy, transmission of organism from mother to fetus is most apt to occur. Absence of organisms in fetal blood does not always signify that fetus is immune to malaria. In present stage of our knowledge there is no explanation of the fact that in some cases placenta is permeable to malarial organisms. while in others it resists them."

Discussion. Dr. Rhamy: In view of the relative infrequency of malaria in this section of the country this case is interesting. Malaria is usually imported. The more severe the case the more apt is it to be transmitted from the mother. In most of the cases the child does not have chills but has convulsions. anemia. cachexia, cyanosis and death. The investigations of Koch show that younger people (children under 15) are usually malaria carriers. They have the parasite in the blood but present no symptoms.

Dr. Porter: On general principles I deny that an intermittent ague can occur without the presence of the parasite in the blood. I admit a child may be intoxicated unto death by malaria in the mother. but the symptoms do not appear in the child.

Dr. Drayer: This case brings out another thing. When you have negative blood findings it does not exclude malaria even when you have a negative count. It is always advisable to use a few good doses of quinin. Eleven or twelve slides were examined in this case without finding even pigment.

Dr. Glock: If there had been any other infection in the blood, would the spleen have been enlarged as this one was?

Dr. McArdle. closing: If this baby had any other blood infection the blood-picture would have been different.

The application of Dr. Schlosser, approved by the board of censors. was presented. Motion carried that rules be suspended and that secretary cast unanimous ballot of society for Dr. Schlosser's membership.

Adjourned. G. Van Sweringen. Secretary.

MARSHALL COUNTY

The Marshall County Medical Society met in regular session September 26 in Plymouth. Meeting called to order by president. Minutes of previous meeting read and approved. Five members present.

Dr. Thompson read a paper on "Burns and Their Treatment."

General discussion.

The following papers will be presented at the October meeting: "Fractures of the Thigh," Dr. Eley, and "Fractures At or Near the Elbow," Dr. Eidson.

Adjourned. A. A. Thompson, Secretary.

THIRTEENTH DISTRICT

The fall meeting of the Thirteenth District Medical Society was held at the Oliver Hotel, South Bend, September 18. The following program was carried out:

"Constipation," M. G. Yocum, Mentone.

Discussed by Drs. Owen, Haywood, McCaskey and Fleming.

"Early Diagnosis of Pulmonary Tuberculosis," E. E. Parker, Culver.

Discussed by Drs. W. J. Thompson, Hoover, Matthews, Spohn, Baer, Haywood, Clark, McCaskey and Terry.

Intermission.

"Treatment of Pelvic Inflammations," J. C. Fleming, Elkhart.

Discussed by Drs. Mitchell, McDonald, Stoltz and Spohn.

Fish dinner at Oliver Hotel.

"Multiple Aneurysm of Internal Carotid Necessitating Extirpation of the Cervical Portion," Chas. Stoltz, South Bend.

Discussed by Dr. C. C. Terry.

"Some Surgical Improvements Seen on a Recent Trip to Europe," Albert J. Ochsner, Chicago.

The following officers were elected: president, H. F. Mitchell, South Bend; vice-president, E. M. Hoover, Elkhart; secretary-treasurer, C. N. Howard, Warsaw.

Goshen was selected as the next place of meeting.

THE TRUTH ABOUT MEDICINES

This department presents, in concise form, facts about the composition, quality and value of medicines. Under "Reliable Medicines" appear brief descriptions of the articles found eligible by the A. M. A. Council on Pharmacy and Chemistry for inclusion with "New and Nonofficial Remedies." Under "Reform in Medicines" appear matters, tending toward honesty in medicines and rational therapeutics, particularly the reports of the A. M. A. Council on Pharmacy and Chemistry and of the Chemical Laboratory.

The text on which these abstracts are based may be obtained from the American Medical Association, 535 Dearborn Ave., Chicago.

RELIABLE MEDICINES

Articles found eligible by the Council on Pharmacy and Chemistry for inclusion with "New and Nonofficial Remedies."

Neosalvarsan is a mixture of sodium 3-diamino-4-dihydroxy-1-arsenobenzene-methanal-sulphoxylate, $NH_2.OH.C_6H_3.As:As.C_6H_3.OH.NH(CH_2O)LSNa$, with inert inorganic salts. The arsenic content of three parts of neosalvarsan is approximately equal to two parts of salvarsan. Neosalvarsan is supplied in sealed tubes containing, respectively, 0.15 gm. (2 3-10 grains), 0.3 gm. (4 6-10 grains), 0.45 gm. (6 9-10 grains), 0.60 gm. (9 3-10 grains), 0.75 gm. (11 6-10 grains), 0.9 gm. (13 9-10 grains). It is readily soluble in water forming solutions which are neutral to litmus and very unstable. The action and uses are the same as those of salvarsan. The average single dose for man is 0.75 gm. (12 grains). It may be administered by intramuscular or, preferably, by intravenous injection. For intravenous injection 25 c.c. freshly distilled water for each 0.15 gm. is to be used. For intramuscular injection 3 c.c. of water should be used for each 0.15 gm. neosalvarsan, this yielding an approximately isotonic solution. Victor Koechl & Co., New York (*Jour. A. M. A.*, Sept. 14, 1912, p. 879).

Saloquinine, the salicylic ester of quinine, is described in New and Nonofficial Remedies, 1912. The product as sold by Merck & Co., New York, has also been admitted to N. N. R. (*Jour. A. M. A.*, Sept. 14, 1912, p. 879).

Articles Accepted for N. N. R. Appendix.—

Menthol-Iodol is a mixture of iodol 99 parts and menthol 1 part. Kalle & Co., New York (*Jour. A. M. A.*, Sept. 14, 1912, p. 879).

REFORM IN MEDICINES

The Food and Drugs Act Amended.—About a year ago the Supreme Court decided that the Food and Drugs Act of 1906 contained no prohibition against false statements as to therapeutic value. Now Congress has amended the law by adopting Congressman Sherley's amendment which makes therapeutic lies on the label of a medicine illegal by adding the following as paragraph 3 to Section 8. "If the package or label shall bear or contain any statement, design, or device regarding the curative or tharapeutic effect of such article, or any of the ingredients or substances contained therein, which is false and fraudulent." There can be no question as to the intent of this amendment. It says to the "patent-medicine" faker in plain and unequivocal terms: "Thou shalt not lie." (*Jour. A. M. A.*, Aug. 31, 1912, p. 727).

Viburnum Compounds and Other Nostrums.—There are a number of drugs which have in some way obtained a reputation as being valuable in the treatment of diseases of women without their therapeutic claims ever having been proven. A considerable number are combined in various nostrums (sometimes with therapeutically active drugs) and exploited for the cure of female disorders. Thus Hayden's Viburnum Compound is claimed to contain American skullcap (*Scutellaria lateriflora*), cramp-bark (*Viburnum opulus*) and wild yam (*Dioscorea villosa*). Other mixtures of this kind including "patent-medicines," proprietary nostrums and "pharmaceutical specialties" contain such drugs as black cohosh, blue cohosh, goldenseal, lady's-slipper, false unicorn-root, cramp-bark, wild yam, star-grass, trailing arbutus, motherwort, Jamaica dogwood, pulsatilla, squaw-vine and saw palmetto. The popularity of preparations of this kind is purely an artificially created one. A nostrum containing, let us say, extractives of some little-used or worthless drugs is put on the market and heavily advertised. Should it be advertised in a manner to make it sell, a host of imitations appear and the large pharmaceutical houses put out substitutes for it. The uncritical physician does the rest. He prescribes it indiscriminately in the class of cases for which it is advertised. Naturally, a certain proportion of the patients who take it recover, and the recoveries are credited to the nostrum. A vicious circle is thus established and the demand for the stuff increases. Its sale, and the sale of similar products, continues until the overwhelming experience of those who have prescribed it proves its uselessness. In the meantime the manufacturers have reaped a harvest at the expense both of the public and of the medical pro-

fession. And the manufacturers' excuse for putting such absurd "specialties" on the market is that physicians prescribe them (*Jour. A. M. A.*, Aug. 31, 1912, p. 735).

Missouri Progressive.—At the annual meeting of the Missouri Medical Association the following motion, urging its members not to support medical journals which carry questionable advertising was adopted:

Whereas, The American Medical Association has been doing effective work to counteract the influence of certain medical journals whose advertising pages carry many fraudulent advertisements; therefore, be it

Resolved, That it is derogatory to the best interests of the Missouri State Medical Association for members to publish articles or papers in medical journals which are not in sympathy with the purposes of this organization; and further

Resolved, That members are hereby requested to cease publishing original articles or other matter in journals whose advertising pages contain fraudulent and questionable advertisements and to give loyal and constant support to the *Journal of the Missouri State Medical Association* (*Jour. A. M. A.*, Aug. 31, 1912, p. 735).

The Habitina Fraud.—The promoters of habitina, R. C. Prewitt and Ryland C. Bruce constituting the Delta Chemical Company, were fined $2,000 and sentenced to five years at hard labor in the United States penitentiary. Habitina was one of those vicious mixtures containing large amounts of morphin which are sold to drug addicts but which instead of curing substitute slavery to a high-priced, fancy-named, morphin mixture for that to the simple opiate itself. In summing up the case the post-office inspectors, in their report, concluded as follows: "The conviction obtained in this case has terminated one of the most pernicious and outrageous frauds ever perpetrated on a credulous public, who were not only defrauded out of large sums of money, ranging from a few dollars to over $2,000 each, but were robbed of health of body and mind; some were rendered blind and some were made maniacs—how many died under the 'treatment' will never be known—but, taking their own testimonials as a source of information, four out of eight have died drug addicts, and out of the thousands of persons they have treated but one witness could be produced by the defendants to testify in behalf of this drug having any remedial properties whatever. These defendants deliberately fostered the most dreadful forms of drug slavery for their personal gain. They made no effort to cure the patient for the blood-money thus obtained. They produced no evidence which would traverse the contention of the Government that the whole purpose of the defendants was to substitute for the slavery to the drug purchased by the habitue from the 'corner pharmacist' under the restrictions of state law, the slavery to the same and worse drugs purchased under a disguised name at many times a fair commercial price from the Delta Chemical Co." (*Jour. A. M. A.*, Sept. 7, 1912, p. 817).

Morphin Versus the Combined Opium Alkaloids.—The results obtained with the isolated "active principles" of drugs have in certain cases been observed to be not entirely identical with those obtained by the administration of galenical products or the crude drug itself. This is notably true of opium, the therapeutic efficacy of which is somewhat different from that of its chief alkaloidal ingredient morphin. W. Straub has undertaken to throw some light on these differences. While it is probable that they would be due to the minor alkaloids of opium, to quote Straub: "It is improbable, *a priori*, that it is necessary, in order to improve the action of morphin, to drag in the whole of the two dozen alkaloids of opium; it is much more probable that only the most active or the most abundant of the alkaloids need to be considered." The researches of Straub have made it probable that the practical differences in the action of opium and morphin are mainly due to the narcotin. H. Caesar has made comparable trials with the other alkaloids associated with morphin in opium and found that these do not produce the reinforcement, under discussion. They do have complex modifying effects, however, which are further complicated by any changes in their relative proportions. Since these proportions vary enormously in different samples of opium, and still more in its galenical preparations, Straub and Caesar suggest the employment of a simple mixture of equal parts of morphin and narcotin in place of the opium (*Jour. A. M. A.*, Sept. 14, 1912, p. 882).

Food and Drugs Act Convictions.—The owners or sellers of the following "patent medicines" have been prosecuted by the Federal authorities in the enforcement of the Food and Drugs Act:

Wood's Soothing Syrup, Wm. J. Wood, Trenton, N. J.—It has been claimed to be "a sure cure for croup," "a preventative against taking cold," etc. Analysis indicated it to be a watery-alcoholic solution of opium, aromatic bodies, sugar, inorganic salts and undetermined matter.

Ralston's Select Bran and Acme Diabetic Flour, Acme Mills Company of Portland, Oregon.—Ralston's Select Bran was claimed to be a brain and nerve food, to give rightness to the eye, cure torpidity of the liver, etc. Examination proved it to be nothing more than ordinary bran. Acme Diabetic Flour was sold under the claim that it was "milled by special process to preserve gluten properties of wheat." While this statement gave the idea that gluten was the chief constituent of this flour, the analysis showed that the product did not contain any more gluten than is found in ordinary wheat flour. While recommended to diabetics it contained an amount of starch equal to that found in ordinary flour.

Dr. Caldwell's Rheumatism Cure, "John" W. Horter, New York.—This nostrum was sold under the usual extravagant claims. Examination indicated it to contain alcohol, salicylic acid, ammonia and traces of bromides, a chlorid, an alkaloid (not identified), sodium and phosphorus were found.

Dr. Caldwell's Anti-Pain Tablets, Dr. Caldwell Medical Company, Poughkeepsie, N. Y.—These were found to contain acetanilid 51.4 per cent., caffein 12.3 per cent., corn-starch 23.2 per cent., camphor, present. The product was found misbranded because the label said nothing in regard to the acetanilid content.

Hoff's Consumption Cure, Bendiner & Schlesinger, New York.—This was found to contain morphin, cinnamic acid, potassium and arsenic. It was declared misbranded because its morphin content had not been declared and because of the untrue therapeutic claims made. With this cure came four other nostrums: Superlatone, Adjunct Cough Mixture, Concentrated Appolozer's Mixture and Kodal Tablets, all of which the victim was expected to use along with the "cure" (*Jour. A. M. A.*, Sept. 14, 1912, p. 893).

Kellogg's Obesity Cures and Other Nostrums.—Frank J. Kellogg, starting with nothing, it is said, has become a millionaire through the exploitation of fraudulent anti-fat and anti-lean preparations. From Battle Creek, he sells "Kellogg's Safe Fat Reducer," and "Sanitone Wafers"; a "nerve vitalizer" from Detroit, he conducts the Rengo Company, selling Rengo, an "obesity cure," and the Protone Company, selling protone "a flesh builder." As a side line both companies sell Malto Fruto, "a constipation cure." All of the Kellogg products are dispensed on the medical mail-order plan. Kellogg's Safe Fat Reducer was formerly known as "Kellogg's Obesity Food" and has been found to contain thyroid gland, poke root and toasted bread. Rengo, formerly known as "Rengo Fruit" has been found to contain thyroid gland, poke root, cascara and cassia fistula. It is little less than criminal that ignorant quacks of Kellogg's type should be permitted to distribute indiscriminately drugs that have the potency for harm that is possessed by thyroid preparations (*Jour. A. M. A.*, Sept. 21, 1912, p. 958).

The Deterioration of Drugs.—Investigation has shown that many drug preparations are prone to deteriorate and that drugs are often many years old when they reach the patient. While some firms have attempted to dodge the responsibility in various ways, others are doing what ought to be done and indicate the date of manufacture on the label of those preparations which are prone to deterioration. This is done for a number of preparations in New and Nonofficial Remedies. A serious attempt to overcome deterioration has been made in a recent report by Pittenger and Vanderkleed, of the scientific staff of the H. K. Mulford Co., on methods for the preservation of fluidextract of ergot. They found that a fluidextract of ergot, put up in hermetically sealed vials, kept its strength for a year without the least change (*Jour. A. M. A.*, Sept. 21, 1912, p. 959).

BOOK REVIEWS

The Friends of the Insane. The Soul of Medical Education, and other essays. By Bayard Holmes, M.D., Chicago. Cloth, pp. 270. Price $1. Published by the Lancet-Clinic Publishing Company, Cincinnati, 1911.

This little work has for its commendation an earnest plea for a more conscientious study of the country's insane. Many vivid instances are recited wherein without doubt distinct abuse exists, and for the correction of such evils the author recommends an association among the profession for the protection of the insane and the friends of the insane against such existent evils. Doubtless the busy American profession has been too prone in the past to dismiss the practical every-day subject of insanity with the establishment of a sufficient diagnosis to warrant commitment without further thought or study on the subject. And it would be very desirable that an insane patient might be accorded the privilege of the same careful diagnostic and therapeutic effort at the hands of the practitioner that is given the routine work of the American physician.

No one would be foolish enough to deny that state institutions and even so-called private sanatoria are to say the least uninviting thoughts. The work itself, however, abounds in many diatribes on subjects seemingly somewhat foreign to the question in hand, and it would seem that a bibliographic summary of the work of the author such as is appended to this work might best be confined to the author's own files.

Diseases of the Genito-Urinary Organs and the Kidney. By Robert H. Greene, M.D., Professor of Genito-Urinary Surgery at the Fordham University New York; and Harlow Brooks, M.D., Assistant Professor of Clinical Medicine, University and Bellevue Medical College. Third Revised Edition. Octavo of 639 pages, 339 illustrations. Philadelphia and London: W. B. Saunders Company, 1912. Cloth, $5.00 net; Half Morocco, $6.50 net.

The field of genito-urinary diseases, particularly from the surgical standpoint, is one in which sufficiently rapid strides are being made each year to warrant frequent revisions of our present standard text-books on the subject, so that the authors of this work were constrained to produce at this time a revised and more complete edition of their already excellent work. They have made the effort, however, to eliminate such material as was only new, feeling that a safer procedure would be to include only such as by personal investigation they had reason to believe was of distinct value. The section on endoscopy, cystoscopy and ureteral catheterization is interesting and well written, although a feature of decided value to the beginner in cystoscopy would have been the addition of color to their plates in illustration of endoscopy and cystoscopy. We find under the description of the various cystoscopes no mention made of the excellent instrument devised by Braasch which would seem to be, all told, decidedly the most practical and inexpensive of the cystoscopes on the market.

A very excellent résumé is given of the Rowntree and Geraghty phenolsulphonephthalein test for renal insufficiency. This of course supplements the various other tests such as the methylene blue, phloridzin and polyuria tests, and the conclusions thereof are based upon a careful trial of this newer diagnostic procedure. From their personal observations the authors seem to feel a preference still for the phloridzin test, but are careful to add that to make this test of greatest utility ureteral catheterization should be made use of.

Passing to the subject of prostatic hypertrophy the authors have not fallen into the most recent deductions regarding the relative values of each of the two routes. More and more is the suprapubic route becoming the route of choice, and yet the authors continue to express their preference for the perineal route.

All told, however, Drs. Greene and Brooks are to be congratulated on this new revision of their work, as they were on the two previous editions and it is the belief of the reviewer that their text should remain one of the standard works on the subject in the English language.

Progressive Medicine. A Quarterly Digest of Advances, Discoveries and Improvements in the Medical and Surgical Sciences. Edited by Hobart A. Hare, M.D., Professor of Therapeutics and Materia Medica in the Jefferson Medical College, Philadelphia. Assisted by L. F. Appleman, M.D., Instructor in Therapeutics, Jefferson Medical College. Sept. 1, 1912. Pp. 353, paper. Price $6 per annum. Lea & Febiger, Philadelphia and New York.

This number opens with a discussion of the diseases of the thorax and its viscera by William Ewart, who takes up first the subject of tuberculosis and its treatment. The question of tuberculin is merely touched on because of the immensity of the subject and no preference is given to any one of the various tuberculin products. Considerable space is then devoted to chest percussion and auscultation. In the consideration of bronchial asthma we find no mention made of the recently exploited phylacogen treatment. Some little space is devoted in the section on the heart to the new Minerbi aortic arch sign and azygos sign, procedures of dorsal percussion in the growing subject.

Perhaps the most interesting discussion in Gottheil's section on dermatology and syphilis is his review of the present status of salvarsan. A perusal of this discussion readily shows the time and pains the collaborator has put to the subject, and his conclusions are correspondingly valuable. A consideration of a single paragraph will perhaps best review his digest. Speaking of the various limitations, he says: "When we consider that in addition to these limitations to its employment it is admitted even by the most enthusiastic advocates of the new drug that its use does not do away with the necessity of a systematic mercurial treatment, and that the best practice to-day consists of the administration of both of them, it is evident that the rôle of arseno-benzol in the treatment of

syphilis is undergoing modifications inevitable with a new therapeutic principle. A single dose or several doses of '606' cannot be expected to cure syphilis; mercury and iodin must be used *secundem artem* to give our patients the best chance of overcoming the virus. In view of the fact that the mortality from salvarsan now numbers into several hundreds, one cannot but feel that Gottheil is right in laying emphasis on the limitations for its use and the precautions that should be taken in its administration.

Davis' very interesting section on obstetrics occupies about 150 pages. The work ends with a discussion of the diseases of the nervous system by Spiller.

Sex Hygiene for the Male and What to Say to the Boy. By G. Frank Lydston, M.D., Professor of the Surgical Diseases of the Genito-Urinary Organs and Syphilology, Medical Department State University of Illinois. Illustrated, with 24 engravings, 305 pages. Cloth $2.25. The Riverton Press, Chicago, 1912.

Few medical men are unacquainted with the virile writings of Dr. Lydston, who for many years has been a well-known author, teacher and practitioner. It is quite possible that he is better fitted than any one else for writing a book on sex hygiene, and as there is a need of a popular treatise on this subject we have no hesitancy in recommending Dr. Lydston's book as being authoritative and free from any suggestion which might mar the intention and purpose for which the book has seemingly been written.

The book has been appropriately dedicated to the parents and teachers who sincerely wish to fight for our boys and wish to learn what to say to them, and to the physician who wishes to lighten his labors by educating the public in matters pertaining to sex. It should fulfil the purpose for which it is intended.

Tumors of the Jaws. By Charles L. Scudder, M.D., Surgeon to the Massachusetts General Hospital. Octavo of 391 pages, with 353 illustrations, 6 in colors. Philadelphia and London: W. B. Saunders Company, 1912. Cloth, $6 net; half morocco, $7.50 net.

The work of Dr. Scudder on the subject of tumors of the jaws marks an epoch in the bibliography of this subject in American literature. The author takes in his preface the very commendable stand that because of the infrequency of these cases the responsibility of the practitioner is thereby increased. Not only has the author succeeded well in impressing upon the reader this point but he has made plain the picture of the various lesions not only by illustrations but by careful statistical story and case history. Having had the privilege of several of the large clinics of Boston wherefrom to draw his material he has succeeded in elaborating on every subject considered in a most impressive manner. Furthermore, foreign bibliography has been followed faithfully and the work stands out as a most valuable monograph on the subject under consideration. Throughout the work emphasis is placed on the importance of early diagnosis and conservative treatment where conservatism is indicated. A most commendable point is made in regard to a proper appreciation of the relative malignancy of jaw tumors, for it is largely on the character of the tumor that operation should depend. As the author well says, "A mutilating operation should not be done for a relatively benign form of malignant growth. On the other hand a very thorough and much more extensive operation is demanded for the malignant growths than has been practiced in the past. The surgeon should study to cure every case of jaw tumor with the least mutilation possible." The attention is further called to the fact that there are certain cases of malignant disease of the jaw which will be actually harmed by a complete operation, and which should be carefully selected and treated as may seem most helpful, as by partial operation, *x*-ray exposure, serums, etc.

The work opens with a most exhaustive and satisfactory treatment of the subject of epulis. The bulk of the work, however, is made up of a discussion of sarcoma and carcinoma and all their various phases as met with on and about the jaws. Fibroma and odontomata and the more benign tumors of the jaw, however, receive a merited discussion. The work closes with a very commendable chapter on prosthesis, a subject which the author claims the profession has been entirely too prone to leave to the dental surgeon.

From the standpoint of medical bibliography the work is most excellently done, both in illustration and in text.

A Treatise on Tumors. For the Use of Physicians and Surgeons. By Arthur E. Hertzler, M.D., of Kansas City, Mo., Assistant Professor of Surgery in the University of Kansas. Octavo, 728 pages, with 538 illustrations and 8 plates. Cloth, $7.00 net; half Persian morocco, gilt top, de luxe, $9.00 net. Lea & Febiger, Publishers, Philadelphia and New York, 1912.

The author of this splendid work on tumors has admirably succeeded in his well-defined purpose of offering to the student and practitioner a practical treatise on the subject.

The material, drawn as it is largely from both the clinical and the laboratory fields, presents a beautiful and harmonious blending of the scientific with the practical, that makes the context intensely interesting to follow.

While the work is in no sense one of operative treatment, yet sufficient space is devoted to diagnosis, prognosis, treatment and its end results, to make it a valuable reference work.

Mooted questions are fairly dealt with, in that all the available data on all sides are presented, as for instance, in the discussion on the etiology of cancer.

A most commendable stand taken by the author is that in favor of the close association that should obtain between the laboratory man and the surgeon, for often times a laboratory diagnosis, without the aid of the clinical history and operative findings, is absolutely impossible.

The illustrations are excellently done, the arrangement good and the work of the printer is a distinct credit to any publishing house.

Practical Anatomy. By John C. Heisler, M.D., Professor of Anatomy in the Medico-Chirurgical College of Philadelphia. With 366 illustrations, of which 225 are in color. J. B. Lippincott Company, Philadelphia and London. Price $4.50.

Professor Heisler has issued this anatomy as a convenient guide for the student in the dissecting room. The details of each region are presented in the order of dissection, and the illustrations are arranged in order, to show the structures encountered. It also contains all the matter necessary for use in general practice for the average physician.

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ORIGINAL ARTICLES

TUBERCULOSIS IN CHILDREN *

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Excepting only the problem of nutrition, the problem of tuberculosis is the most important one of childhood. Yet it is a little-understood and illy-appreciated problem, as the consideration of tuberculosis in children, as a topic apart from the general consideration of tuberculosis (which usually means tuberculosis in adults), has been but a very recent departure in medical literature.

It is now generally recognized that in the study of tuberculosis in children we must "wipe completely off our diagnostic slate the old picture of pulmonary tuberculosis, based on a group of symptoms presented in the adult, and carefully redraw an almost entirely new picture of the pulmonary form of the disease as it presents itself in childhood." Such an attitude is in a manner revolutionary, yet it is not so strange as it may seem at first glance. Our viewpoint of disease in general is constantly changing. The man who remains in the practice of medicine with a mind not readily given to receive new ideas and impressions, becomes in a few years hopelessly confused and lost.

The writer has in the past ten years seen the theory of disease production practically rewritten three times. When he entered the profession, the accepted teaching regarding the rôle played by bacteria in disease production was that of Koch, and demanded the approval of a doctrine of specificity of action of the bacteria or its products to produce disease. Soon it began to be timidly offered that possibly the associated action of different varieties of bacteria might modify or materially alter the nature of the resulting disease; and Frost of the University of Wisconsin gave his epoch-making work to the world, showing the tremendous influence the *Bacillus prodigiosus* had on the typhoid bacillus of Eberth, when grown with it. Gradually the subject developed, and soon data was on hand showing that the old idea of "specificity," as dogmatized by Koch, was true in a less absolute manner than had been believed, and we now recognize diseases, such as the so-called angina of Vincent, in which it is necessary for two very dissimilar organisms to be associated before the disease can be produced. Ten years ago this was a rank heresy.

At that time the orthodox and accepted faith regarding the well-known capacity of the blood to destroy invading bacteria was the theory of Metchnikoff—that the force within the body, serving as a protective influence against bacterial invasion, was the so-called phagocytic activity of the white blood-cells. Every high school physiology student knew the wonderful story of the struggle that took place between the invading bacteria and the aggressive white blood-cells, ending in the white blood-cells taking within their own bodies the bacteria and destroying them. Yet it is within quite recent years that Wright in his ingenuous work, following Leichman's development of technique, proved that the white blood-cells exercised but a passive, or at best a very minor rôle in destroying bacteria in the blood-stream, and the major if not the entire effort was on the part of the blood-serum or plasma.

I well remember when Major Reid, U. S. A., first proved yellow fever to be caused by organisms so small that they passed through the finest mesh procelain filter, and therefore so small that it was impossible to see them with the magnifications possible with the best of modern micro-

* Presented before the Indiana State Medical Association, Indianapolis Session, 1912.

scopes, and proved the reality of ultra-microscopic organisms.

Ten years ago malaria was the only disease proved with any degree of certainty to be caused by a protozoon. Now we have whole groups of such diseases — syphilis, sleeping sickness, yaws, etc., and higher in the animal kingdom we have the much joked hookworm.

So our view point is ever and rapidly changing, and one who loses his grip on the situation, even for a few years, is hopelessly lost.

In like manner has the more careful study of tuberculosis in children given us an entirely new viewpoint. A text written upon tuberculosis in children ten years ago is of merit now more largely as an historical consideration than for practical value. Few texts considered the matter as apart from tuberculosis in adults, and these few none too thoroughly or accurately. With more accurate methods of statistical study, and more thorough post-mortem examinations, we are now beginning to recognize that the methods of physical examination and the knowledge of the course of the disease in the adult, are of small moment in considering the disease in children.

The old idea, so persistently repeated in text-books almost without exception, that tuberculosis in the child is largely a matter of local disease of the joints or glands, is thoroughly discredited by the more recent and accurate post-mortem studies. While fully appreciative that the finding of children's hospitals located in the larger cities are not safe indicators of our local conditions, because of their almost invariable attraction to them of the pauper and foreign-born children in greater measure than the native born or better-cared-for children, yet even granting that, these findings are not without value!

Tuberculosis in children, as in the adult, is more often of the pulmonary type than the gland or joint type. In an easy-going manner it had been accepted with little or no demand for statistical or other proof that in early life tuberculosis was a joint or gland disease, but in later life it was a pulmonary disease. With more accurate methods of diagnosis we now know that in early life as well as late life, the greatest problem of tuberculosis is the pulmonary one. Some men go so far as to question whether we have any or at most but very few cases of tuberculosis in children in which the lungs are not involved together with the joint or gland offering the most prominent objective symptom, and giving the type-name to the variety of tuberculosis present. Some few men go so far as to question if all cases of tuberculosis in children are not primarily of the pulmonary type, with secondary and more radical involvement of a joint or gland.

The most confusing incident in the recognition of tuberculosis of the lung in children is that pulmonary tuberculosis in a child rarely involves either apex. This was an unexpected and confusing finding, as it violates our idea of pulmonary tuberculosis as acquired from studies of pulmonary tuberculosis in the adult. In the adult the general rule, from which of course exceptions are sometimes noted, is to find the lesion in one of the apices, usually the right. So usual is this occurrence that until one has been humiliated by finding in a second or third examination a lesion which had entirely escaped him at first examination, in a portion of the lung other than the apex, he is liable to be less thorough in his examinations of portions of the chest other than the apices, than the situation in the adult even would really warrant. In the child, however, the apices are rarely involved. The common location for the lesion is at about the nipples or slightly below and to the outside of same.

While in the adult the right chest at the apex is more often involved, in the child the left chest at about the nipple is involved more often than the right in the proportion of almost two to one.

A remarkable and interesting feature of medical research is that nothing is idle or wasted, and that some of the most valuable findings we have to-day follow very unexpectedly the train of events very widely removed from the end really sought. Thus, Robert Koch startles the world by announcing his belief that bovine tuberculosis was not to be acquired by human beings. Koch was proven wrong. Yet from the work done to disprove Koch, and prove that milk and meat from tuberculous cattle were unwholesome, some very valuable contributions have been made to our fund of information on the whole subject. Ravenel, Theobald Smith, Novy, Landis and others proved very early that the tissue in the body which became the seat of the tuberculous process was in no wise necessarily the seat of primary invasion; nor was the tissue most seriously damaged necessarily the tissue earliest involved. They were able to demonstrate tubercle bacilli in the intestinal wall, and yet these tissues exhibit none of the structural changes we call a tuberculous process. They were able to produce pulmonary tuberculosis in animals by feeding with known tuberculous milk, without producing tuberculosis of the bowels, or even tuberculous mesenteric glands, and yet at the same time prove the presence of the tubercle bacilli in the intestinal wall and mesenteric glands. So the exhibition of a tuberculous process in a tissue merely proclaims it to be the seat

of the disease process, and gives no indication as to the portal of entrance or the order in which it or the body tissues received the bacteria.

We are not justified in assuming that because our little patients have a tuberculous gland or joint disease that the condition is purely local, as repeated experiences have demonstrated a very large percentage of these cases to also have the pulmonary form of the disease. Indeed, the marked trend of the more studied and thoughtful offerings on the subject in the last three years has been to cast doubt if any of these gland and joint cases were really primary cases. The evidence all seems to indicate rather forcibly that the condition in the majority of these cases is really primarily a pulmonary one, with secondary localization in some gland or joint.

When it was proven that the portal of entrance of the tubercle bacillus was in no sense necessarily the tissue exhibiting the earliest tuberculous process, several new and valuable findings were soon at hand. Thus the long standing conviction of the hypertrophied tonsils or adenoids as avenues inviting the entrance of tubercle bacilli was found unjustified. Indeed, it has been repeatedly proven that the percentage of children with enlarged tonsils and adenoids having tuberculosis is very measurably smaller than the percentage of children having tuberculosis yet possessing normal tonsils.

In other words, it has been proven that in a hundred children having enlarged tonsils and adenoids you have appreciatively fewer cases of tuberculosis than you will find in a hundred children with a normal throat. And the fearful slaughter of the youthful tonsil because of the tuberculosis bogy man has been discontinued in the best medical circles.

Understand, I do not advocate the retention of tonsils notably diseased, yet we must frankly admit that from the standpoint of tuberculosis hazard we are not justified in so doing, as an hypertrophied tonsil is not an invitation to an invading tubercle bacillus.

We have shown how that in children the most prominent lung lesion is usually in the left chest at about the nipple, and called attention to the fact that in the adult the right apex, a region very distant anatomically from the left nipple area, is most prominently involved. We have now to state another very marked anatomical difference between the disease in adults and in children. Cavity formation in children is not common, although it does occur. The lung as a rule is not very grossly involved, as the common tendency is for the disease to become miliary or meningitic, or be carried to some gland or joint with more or less arrest of the pulmonary phase. The presence of these conditions all too often ends in a meningitis or in a miliary tuberculosis.

The reason we so seldom have cavity formation in children is that the pulmonary type rarely remains purely so long enough to allow enough tissue destruction to produce a cavity. The usual course is for this pulmonary type in children either to become arrested, develop into the fatal miliary or meningitic types, or become localized in a joint or gland. An early recognition of the pulmonary stage of the disease will lead to appropriate treatment and less likelihood of these events.

Tuberculosis in children frequently follows in the train of some other infectious disease. This tendency really constitutes the serious menace of certain infectious diseases not usually considered dangerous. I regard measles in children as serious a disease as scarlet fever. True, measles has a very low apparent death-rate, while scarlet fever has a high one. Yet in the case of measles the association with death is less immediate and therefore does not appear in mortality tables from which we are accustomed to form our estimate of hazards. Measles seemingly predisposes toward the development of tuberculosis in a degree not enjoyed by any of the other infectious diseases of childhood. Scarlet fever and diphtheria have very appreciatively fewer cases of tuberculosis developing secondarily than do measles. This tendency to develop a secondary tuberculosis places measles in the class of serious diseases of childhood.

There is nothing strange about it, either. That certain races of human beings can live together to their mutual advantage and profit is not strange or difficult to believe, for it is a matter within the range of everyone's experience and observation. Differing types of bacteria can in like manner live together to their mutual advantage, or even follow each other in residentship to mutual advantage. I believe this to be the most fertile field for bacteriological study open to-day, and that the next rewriting of our theory of disease production and prevention will be along these lines. That such association can modify and alter the nature of resulting disease is proven, but the search for bacteria having an antagonistic action on major disease-producers is practically a virgin field.

The effect of disease upon disease favorable or unfortunate has been recognized for centuries. Thus, erysipelas has a favorable effect on psoriasis. In a manner, the predisposing of the body to disease by attacks of other diseases previously, is well known, and our effort to get a clear history has in it a practical recognition of this phenomenon.

It is very simple, although by no means satisfying, to explain this development of tuberculosis, coincident or as a sequel to whooping-cough or influenza, on the time-honored, but only partially, satisfactory grounds of lowered vitality following these notoriously weakening diseases; yet we cannot by any stretch of the imagination admit that so mild a disease as measles has debilitated the child so much as to favor the activity of the tubercle bacilli, in greater degree than more serious diseases, as diphtheria.

We must admit that there apparently exists some definite, but as yet unknown relationship between the event of measles and the development of tuberculosis in the child. Ganghopner, of Prague, has made a very careful study of this particular problem, and he has a series of 176 cases of measles coming to autopsy. He found tuberculosis definite in fifty-five, or 31.2 per cent. The condition most commonly found was that of acute miliary tuberculosis, with tuberculous meningitis as a close second. His figures are confirmed elsewhere, by other equally good men.

Personally, I accept the opinion of Copeland, of Washington, that such cases are probably tuberculous prior to the attack of measles, and the tuberculosis is not a sequel, but rather a coincidence. But why measles, a very mild and comparatively trivial condition, should favor this flaring up of the tuberculous process to a much greater degree than scarlet fever, which is so much more serious, I cannot say. It appears to be a process similar to the favoring circumstance of two bacteria grown together, to the mutual advantage of each other, so-called symbiosis. Here, however, we have two diseases, the cause of the one only, tuberculosis, being proven, occurring with mutual increase of destructive capacity.

The practical note is, that measles is not a simple, trivial disease, to be had and gotten over with, but is really one of the serious affairs of childhood and should be greeted accordingly. Each case of measles in a child should be considered as one potentially tuberculous, and a very careful and painstaking search made for possible lesions of an existing but latent tuberculosis.

Each case of measles should be accorded the advantage of medical observation for at least a year following the attack. Such observation need not be frequent, but the parent should be advised that a child who has recovered from measles is possibly essentially tuberculous, and should be watched accordingly.

DIAGNOSIS

Physical signs of tuberculosis in children are uncertain and frequently so ill-defined as to make a diagnosis difficult on a purely physical examination. You will rarely find any evidence of cavity formation, as such an event is unusual in children. The usual clinical finding is a few ill-defined râles, more indicative of ordinary bronchitis than anything else. If a sputum can be obtained and the tubercle bacilli found, the diagnosis is simple and readily made. Yet such sputum can rarely be obtained, as it is usually swallowed, and even when obtained it is difficult to examine. The ordinary technic for examining for tubercle bacilli will hardly suffice for a sputum of a child. Such sputum is usually either too thin and watery, or too rich in mucus, and all such sputa should be centrifuged before examining it. Thinning and cutting the mucus with alkali is a useful procedure, but smears from such treated sputa should be stained in an abundance of the carbol-fuchsin, or the stain frequently changed, as the alkali markedly lessens the mordant action of the carbolic acid in the stain, and the bacilli do not tend to stain so readily or deeply.

SWAB METHOD

It is frequently impossible to get a sample of sputum from a child that we strongly suspect to be raising a sputum. I have found the following simple expedient to be of service. Take a pair of artery forceps and grasp in them tightly a wad of gauze. Then after depressing the tongue, touch the back of the throat with the gauze. This causes the patient to cough and usually sputum is caught on the gauze and can be immediately examined.

The most reliable test is the skin reaction of Von Pirquet. While it is true that for adults this test is of less certainty than others, yet for children it is generally admitted to be the best. The technic of the test varies in the hands of different operators. My technic is as follows: First, I clean the arm well with soap and water; second, I wash well with gasoline or alcohol or ether, it matters not which is used. The effort is merely to remove the soap and fat; third, I then place on the arm a good-sized drop of Koch's tuberculin, old, and make one or two parallel scratches through it, much as you would to vaccinate against small-pox, being careful not to draw any blood. After air-drying I cover with an ordinary dressing, such as I would a vaccination against small-pox. I now make a control test. Same technic, same dressing and all, omitting, of course, the tuberculin. You should have a characteristic reaction in twenty-four hours.

It takes a great deal of experience to properly interpret findings, and I am convinced that frequently tests are called positive that really are not. The performance of the test is relatively simple, but the intelligent interpretation requires

some little experience and familiarity with resulting lesions.

Personally, I make a diagnosis of tuberculosis in a child on finding this test positive, and with suggestive clinical findings. I should make the diagnosis on the test alone, but I prefer to have some clinical indications along with it.

TUBERCULIN TREATMENT *

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The demonstration by Koch, in 1882, of the bacterial origin of tuberculosis at once resulted in a multitude of experiments from both the clinical and the laboratory side, directed toward finding an agent which would kill or effectually inhibit the growth of tubercle bacilli in the body.

These experiments are still going on with an ever widening range, and often old agents and old methods are revived and revamped, only to meet with failure.

Following, and largely as a result of this disappointment, physicians were impelled to turn with renewed energy to the old principle of treatment, to address themselves chiefly to the soil rather than the seed. This plan, both old and new, but intensified and systematized, especially as carried out in special institutions, has given us what we call the modern hygienic-dietetic treatment of tuberculosis. It is a rational, thorough, systematic and sustained effort to build up, as we say, the general health, avert accidents, remedy complicating disorders, lessen the frequency and severity of exacerbations, and thus to establish as far as possible the greatest tissue resistance and afford the best opportunity for the natural anatomic process of arrest or cure.

And its results have been most beneficent and almost startingly successful; so successful as to lead men to believe that, joined to our modern methods of early and accurate diagnosis the problem of treatment of tuberculosis was almost solved. It has saved thousands of lives, has added years to the lives of other thousands, and all along the line has given stimulus and new hope to the afflicted and to those who were responsible for trying to help them. Under the spell of its real and apparent success, of its "arrests" and "apparent cures," other agencies have been pushed into comparative insignificance, and even the long vaunted value of "climatic influence" has been denied or seriously questioned. With the history of these things all are familiar.

Yet the problem of a real cure for tuberculosis remained unsolved.

"The hygenic-dietetic treatment is almost a specific for the general condition, which, with such treatment, soon equals or even surpasses any state ever reached in health. With the lungs, however, it is a different and a vastly more difficult problem. To change, to arrest, to cure a pulmonary lesion requires not weeks or months, but years. Pulmonary tuberculosis is a relapsing disease. The results of treatment must, therefore, be considered under two heads: immediate and ultimate. The immediate results may be manipulated, even unconsciously, but the test of time is rigorous and "living" and "dead" admit of no personal equation or variation of definition" (Brown: Osler's System, III).

From a mass of statistical studies of patients treated at the Saranac Sanitarium during a period of twenty years, the following deductions are made:

On the whole, the death-rate for the "apparently cured" patients may be said to be double the general death-rate: for the "arrested" cases eight times the general death-rate. The patients who were neither apparently cured nor arrested on discharge from the sanatorium may be said to have on the whole, a death-rate twenty-eight times the general death-rate. These figures refer to pulmonary tuberculosis.

These things are not set forth to disparage the hygienic-dietetic plan of treatment, the so-called "fresh-air cure," for it represents a splendid advance and remains our chief and substantial reliance in the treatment of this disease.

But there is nothing specifically anti-tubercular in rest, fresh air, high nutrition and mental exhilaration. The relapses, under ordinary conditions of life, of arrested and apparently cured cases of pulmonary tuberculosis, or the disappointing development of laryngeal, intestinal, genito-urinary or meningeal disease, and the long struggle, under radically changed and unusual conditions of life, which so many of them must make in order to maintain fair health, or achieve an ultimate cure—these things remind us of the need of something more.

And so we are now in the third era of the modern treatment of tuberculosis, the era of the development of specific remedies along scientific lines.

We are not to despair of a possible drug or chemical specific for tuberculosis. For such infective granulomata as syphilis, actinomycosis and blastomycosis have been reached by drugs showing a specifically selective action, and the recent researches and achievements of Ehrlich give us

* Read before the Indiana State Medical Association, Indianapolis Session, 1912.

renewed hope for a specific tubercular parasitotropic drug.

But at present we mean by specific treatment the use of tubercular bacillary agents.

I do not propose to go into an elaborate discussion of the history of tuberculin treatment, nor make an extended excursion into the inviting field of theories regarding the nature of tuberculin and the intricate mazes of its action as an antigen. I shall not have much to say in detail about agglutinins, precipitins and opsonins. I am writing now for the average physician, and I am sure, from questions often asked me, that there are certain things which he specially wishes and ought to know about tuberculin and tuberculin therapy. These things I shall try to set forth briefly and as clearly as I can.

I.—WHAT IS TUBERCULIN?

The term tuberculin has been commonly applied to a number of substances which fall into two groups: the culture products and the bacillary substance. The former group is represented by the well known Old Tuberculin of Koch and the Bouillon Filtrate of Denys. These are culture fluids on which the bacilli have been grown. Both are filtered to remove the bacilli, and have a small per cent. of preservative added.

To the second group belong the New Tuberculin and the Bacillus Emulsion of Koch. These are prepared from ground or triturated tubercle bacilli, the former being a solution of the residue of ground bacilli in salt solution after the first "macerating" fluid has been discarded. The Bacillus Emulsion is a suspension of ground bacilli in salt solution, heated for one hour to 60° C., to destroy any possible living germs. It is practically the same as a vaccine or bacterin, except that it is a suspension of ground instead of whole bacteria. It thus probably comes nearer than any preparation to containing all of the supposedly desirable substance or substances.

The preparations of this class, containing the bacillary substance, are believed by many to have a more distinct anti-bacillary effect than the culture products, the tuberculins proper, which contain less of the bacillary proteids. There is experimental evidence of the correctness of this view, in the more pronounced tendency to excite the formation in the body of agglutinins, precipitins and opsonins. It has been customary to speak of Old Tuberculin as containing substances secreted by the bacilli during the culture period, but this is probably incorrect, the Old Tuberculin probably containing substances extracted from the bacilli in the process of preparation. Upon this belief is based the conviction held by many that for clinical purposes there is no essential difference between the different preparations of tuberculins. Bandelier and Roepke, who have followed the whole matter from the beginning, and who have had a large clinical experience extending over many years, have used chiefly the Old Tuberculin. The majority at present, however, favor the Bacillus Emulsion, or similar preparation. "The qualifications of the physician who administers it are, however, certainly of more importance in most cases than the quality of the tuberculin used" (Sahli).

"It may be said of the various tuberculins that, viewed from a chemical standpoint, they all contain the peculiar nuclein substance or its derivatives in greater or less quantity and degree of solubility. In some the endotoxin has been altered or decomposed by heat or extractives, but all are capable of producing the characteristic reaction in tuberculous subjects" (Baldwin).

The dose of tuberculin should always be measured and expressed in definite figures. The tuberculins are standardized according to their content of toxic or bacillary substance. The measurements are expressed in milligrams, and this should be the universal rule. It is customary for the manufacturing houses to put out serial dilutions for the convenience of physicians, the dose being so many drops of this or that dilution. The physician should, however, accustom himself to think of and record his dosage in milligrams of the standardized preparation. The manufacturers always state the milligram strength of their serial dilutions, and this, rather than the drop-measurements, should always be followed. One would not say that he gave so many capsules of quinine, but so many grains of a certain preparation of the drug. So should he also give and record his tuberculin doses.

II.—THE BASIS FOR THE TUBERCULIN TREATMENT

That recovery from a tuberculous infection, especially of the glands or skin, seemed to confer some degree of immunity against subsequent pulmonary tuberculosis, had been suggested by others before Koch, notably by Marfan. But it was Koch's definite observations that really gave rise to the whole tuberculin movement.

He noted that when certain animals had been successfully inoculated with tuberculosis, a subsequent local inoculation pursued a course quite different from the first. There was a distinct tendency to localize and apparently to resist the second inoculation. The subsequent studies along this line, especially by Von Pirquet and Schick, have given us the modern doctrines of "allergy"

and the newer forms of local tuberculin diagnostic tests. This suggested to Koch that there was in tuberculosis a definitely recognizable tendency to immunization, and this stimulated him to find the immunizing substance. The result was the production of his original tuberculin in 1890. Believing that this original tuberculin was chiefly an antitoxic rather than an antibacterial remedy, he was led to the production, in 1897, of his New Tuberculin, or T. R., and in 1901, of his Bacillen Emulsion, both being preparations of the bacillary substance.

He was led to these progressive modifications of tuberculin by his studies, and those of others, of the antibodies, agglutinins, precipitins, etc., present in the blood after the injection of the various preparations of immunizing agents.

All the other work, by a multitude of investigators, has been based on the original inoculation observation by Koch, and all has been directed toward elucidating the mechanism of tuberculin immunity, the most efficient and safest form of immunizing agent, and the best methods of using these agents.

In the attempt at preventive immunization of animals not already tuberculous, as distinguished from curative immunization, the investigations have been carried to the demonstration of a high degree of protection against tuberculosis, especially in calves. For this purpose the living tubercle bacilli seem to have proven the most efficient immunizing agents. But the methods have not as yet been made practically applicable for the protective immunization of human beings.

The scientific basis, therefore, for the tuberculin treatment lies in the original inoculation-observation of Koch, and the subsequent investigations tending to confirm and explain it. These investigations have demonstrated the presence of specific antibodies in the blood of animals and men under specific immunizing treatment, and have served in some measure at least to guide us in applying the treatment.

III.—THE RATIONALE OF TUBERCULIN ACTION AND CLINICAL USE

It is but human nature to expect much from remedial agents to which the term "specific" is applied. It is but natural for the uninformed to think that such a "specific" remedy, if good for one case of the disease should be good for all; if helpful in early or mild or otherwise selected cases, it might help the otherwise helpless; and if beneficial in small doses then why not push it as rapidly and energetically as possible?

Yet it is of the greatest importance to the physician who would apply, and to the patients who seek, tuberculin treatment, to know that this is just what is not true of it, and why it is not true; and I feel sure that what I shall have to say on this point is the most important part of this paper.

I am accustomed to ask medical students to carry with them some such statement as this: that "tuberculin is not of itself and directly a curative or protective agent against tuberculosis; it is an agent which tends to stimulate the body to produce its own protection."

In all its forms tuberculin is an antigen, an antibody generator, which makes a demand on the body to react in the formation of antibodies. And this is true in spite of the talk about using tuberculin clinically without producing visible "reactions."

You cannot whip a horse to excite him to greater work without calling on his latent energies. If he has not such, the whip will be useless; if he is already fagged and you apply the whip, you will only help to break him down.

All antigens are in a sense whips and spurs, however gently applied. Let him who uses them not forget it.

Doubtless much of the popular and even professional misconception about the clinical use of tuberculin is the result of our experiences with antitoxic serums, especially the diphtheria antitoxin. We should, therefore, clearly differentiate between the passive immunity resulting from the injection of an antitoxic serum and the active immunization by the use of an antigen.

To secure such understanding for practical purposes, I am fond of reminding professional confrères and inquiring laymen of the analogy to be drawn from the process of immunizing the horse against diphtheria; not forgetting, of course, that the analogy is not complete and cannot scientifically be carried too far.

You are all familiar with this process; the use of the toxic antigen, the beginning small dose, the necessary interval between doses, the equally necessary slow progression in dosage, and the surprising exhibition of variation in reaction of apparently similar animals to the same doses.

The animal's body is thus used for months as the laboratory for the gradual work of the antigen.

After this long process the animal is immunized against immense doses of the toxic antigen, with the usual but not invariable development in his blood of a corresponding amount of beneficent antibody which may now be transferred to the sick human being for the production of an immediate passive immunity.

The point of inference surely is clear. In tuberculin treatment we do not introduce an anti-

body, nor do we confer a passive immunity. We introduce a toxic antigen and begin a process analogous to that carried on for months in the horse laboratory.

You will remember, too, that the horses are selected for health and vigor, not simply to guard against contamination from their blood, but to insure as far as possible that they may endure the reactive strain put on them.

He who understands these things cannot fail to understand the reasons for discrimination and caution in the clinical application of tuberculin treatment—the rational selection of patients, the small beginning dose, the necessary intervals between doses, the guarded progression, and the watchfulness against unexpected sensitiveness.

But we must, for the purposes of practical tuberculin therapy, note one important defect in the above analogy: The horse becomes gradually immunized against the toxic antigen, so that he can endure without apparent harm thousands of times the original dose, and this is accompanied by a somewhat corresponding development of protective antibody. So may a man be gradually immunized against the toxic antigen tuberculin, so that he may stand without apparent harm many times the original dose.

This is true of any of the forms of tuberculin.

But unfortunately, in the tuberculin treatment, this is not accompanied by a corresponding develment of either antitoxic or antibacterial substances. This is not surprising if we remember the facts of clinical observation regarding the comparatively slight tendency to specific self-limitation, self-immunization, in tuberculosis.

Let no one, therefore, suppose that large dosage with the gradual development of tuberculin tolerance means corresponding curative results. An animal or a man may be brought to a high degree of tuberculin tolerance and yet be dying of progressive tuberculosis.

Of these things, therefore, it is for the judicious to take note.

IV.—THE CLINICAL DOSAGE

In this paper I have dealt chiefly with principles and facts of general import. Concerning the details of tuberculin treatment I must leave much to your own studies. But some things should be specially noted.

What is the proper dosage of tuberculin?

By general agreement, and for the reasons already stated, the beginning dose should always be very small. More than 1/10,000 milligram of either Old Tuberculin or Bacillus Emulsion should probably never be given at first. It is wise as a rule to begin with not more than 1/50,000 mg. In case of doubt, always start with the smaller dose.

How far should the dosage be carried?

Here we meet with two schools of practice. Some increase, with occasional intermissions, almost to the limit of apparent tolerance. Others, following Wright, of opsonic index fame, adhere to very moderate doses, seldom more than 1/500 mg. of Bacillus Emulsion. They do not find the opsonic index of phagocytosis to be indefinitely increased by progressive dosage, and so do not attempt it. They do not, to use the excellent simile of one of my patients, expect to make a crippled man able to run as fas as a greyhound, but only as fast as the average healthy man.

It all depends on one's views of tuberculin action, concerning which we are still somewhat uncertain. Perhaps no harm is done by large dosage if well tolerated. But never forget that curative action in tuberculin therapy is not measured by tuberculin tolerance.

In the absence of satisfactory biological tests for every-day use, the clinical guide for increase of dosage is the best one. For behind the toxic antigen must be a body capable of beneficial reaction.

V.—THE DURATION OF TREATMENT

The advocates of progressively large dosage, usually, and wisely I think, advise periods of intermission. With the continued small dosage this is not so necessary. But clinical experience and the most rational theorizing both make plain that little can be expected from tuberculin treatment except when long continued.

I have had a considerable number of patients who have undergone continuous treatment with small doses for one to four years, and these are the ones who, I judge, have shown the most benefit. These, indeed, are the ones who have given me an increasing confidence in the value of tuberculin treatment.

As time and improvement go on, the intervals between doses may be increased. I have now under treatment a number of patients, who, after one to four years, receive a dose once in two to four weeks. These are the wise and happy ones, the ones whom, in sporting phrase, I call my crack patients.

VI.—THE RESULTS OF TUBERCULIN TREATMENT

In a disease with the clinical history of tuberculosis, under a treatment which is at best only a

supplement and help to the hygienic-dietetic plan, and in which so many of both private and institutional patients fail, for various reasons, to afford us opportunity for thorough test, it is indeed difficult to reach definite conclusions as to its value. We depend for those conclusions partly on the carefully sifted statistics which are gradually accumulating, and partly on the general but significant impressions of discriminating and unprejudiced clinicians. Among the statistical tables we may take, as examples, those from the Saranac Sanitarium and covering a number of years.

At the time of discharge the addition of tuberculin treatment seemed to show, over the ordinary treatment, an advantage, in the incipient cases of slight degree, in the moderately advanced cases of marked degree (apparently cured 27 per cent. as against 6 per cent.; arrested 50 and 51 per cent., and still active 18 and 43 per cent., respectively). The ultimate results, one to fifteen years after discharge, are more significant. They seem to show for the incipient cases an advantage of about 25 per cent., and for the more advanced cases an advantage of about 66 per cent. The statistics of Von Ruck, also covering many years and relating to immediate and remote results, are approximately similar.

Such statistics are in agreement with the general impressions which are growing in the minds of many experienced clinicians, that tuberculin treatment judiciously applied over a proper length of time, is a real aid to the hygienic-dietetic treatment, adding appreciably to the prospect of overcoming the disease, and much to the prospect of resisting relapse and maintaining health.

With passing years and lengthening experience my own impressions are the same.

I have not in this paper specially referred to tuberculin treatment as applied to external and surgical tuberculosis. I would summarize by saying that these forms of tuberculosis allow and invite a larger dosage and more energetic use of the agent, even to the local application of the undiluted tuberculin. There are some interesting and significant phases of this subject, but I refrain from further discussion of them here.

Briefly, then, our chief reliance in the treatment of tuberculosis is still the hygienic-dietetic plan, together with medicinal and surgical measures as rationally indicated.

To these we may now add the tuberculin treatment, with a reasonable assurance of thereby increasing the prospect of recovery and the promise of enduring benefit.

HOME TREATMENT OF TUBERCULOSIS *

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In discussing the home treatment of tuberculosis I wish to present my remarks in the following manner: prevention, home management and the results obtained by treatment. The most important of all is prevention, and second, prevention of repeated reinfections.

A common observation in bacteriology is the size of the dose necessary to overcome animal tissue. The body may be able to destroy small numbers of virulent organisms if infected only once, but repeated infections of the same bacteria will finally overload the system and disease will be the result. There is no question but the size of the dose has to do with the possibility of contracting the disease and the rapidity of its destructive results. Third in importance is prevention of mixed infections.

We hear so much about prevention of disease. It has become so common and uninteresting as to lose much of its power. The laity know little about preventing trouble, and usually give such things little concern until they are overwhelmed by the ravages of disease. We know that if tuberculosis is to be banished from the face of the earth it must be done by prevention. This means teaching and educating the people to a realization of their responsibility in this matter. The medical profession has conducted its part of the responsibility to its own credit. It has demonstrated the cause, determined the manner of infection and pointed out the methods of preventing the disease. It has also proven that the disease is curable, and can direct each case so as to obtain the desired good.

But we still have a great burden which must be properly disposed of—that of educating the laity to prevent infection. This must be accomplished in a rational manner. We cannot teach "old dogs new tricks." It is useless to preach prevention to a man suffering from tuberculosis, because he as a rule is not in sympathy with the plan.

This instruction must be given to the child along with his reading, writing and arithmetic. It is useless to try to teach the consumptive such lessons, because he has passed the age when new impressions are easily made. If we can prevent tuberculosis in the child we will soon have the disease under control. Those who have consumption will soon die, and if new cases are not permitted to develop the disease must cease to exist.

* Read before the Indiana State Medical Association, Indianapolis Session, 1912.

David Starr Jordan states: "There is nothing in all the world so important as little children, nothing so interesting. If ever you wish to go in for philanthropy, if ever you wish to be of any real use in the world, do something for children. We can dress the sore, bandage the wounded, imprison the criminal, heal the sick and bury the dead, but there is always the chance that we can save the child. If the great army of philanthropists ever exterminate sin and pestilence, ever work out our race's salvation, it will be because a little child has led them." And let me add, that if the world is to be freed from tuberculosis, the child will be the highway for such freedom.

It seems that we have the cart before the horse, in our work in the state. We are caring for the curable incipient case and permitting the hopeless incurable to infect new cases on his long way to the grave. We should have in this state and in this city a place for a consumptive to die in peace and comfort. At present he is excluded from all institutions and has no choice in the matter unless he is financially able to change his conditions. This state encourages and permits a consumptive to infect his wife, children, associate, employer and the community by such neglect.

There is wisdom in curing cases of tuberculosis, but there are reason and judgment in preventing it. The careless, indigent, ignorant consumptive should be quarantined in much the same manner that we would small-pox. The state should protect the lives of helpless, innocent children from this scourge as vigorously as it would from war and invasion. Hamberger estimates that 90 per cent. of those infected with tuberculosis are infected in early childhood. He also calls attention to the fact that tuberculosis is usually latent in the third and fourth years of life.

Prevention can be accomplished by better medical inspection of schools and closer observation of the child's condition. It is the duty of the state to correct physical defects so far as possible. If the parents do not do this, the child should be spared future humiliation and handicap by outside help. Teachers in public schools should realize that a strong body is a good ally in decorum and mental progress. A proper eyeglass or the adenoid curet would probably spare the rod and cloak room many times. Good food, good hygienic surroundings and proper physical development of the child life will greatly increase the resistance and immunity of future generations to this disease. The result of such work in this city would be 30,000 bright and shining lights proclaiming the value of prevention of diseases over cure alone.

The home management of a tuberculous patient presents many difficulties. The trouble is not so great in incipient cases where the individual is able to care for himself. In incipient cases the problems are those of abundant fresh air, good food and rest. These things alone, however, will not cure the case. It requires close medical supervision and optomistic encouragement to keep the patient intent on the business of getting well. Most cases become restless and impatient the very moment they begin to feel good, and want to disregard the very things which helped them back to apparent health. There must be an absolute understanding between physician and patient that it takes a definite time to produce a cure. An arrested case may look and feel well, but careful examinations will reveal the falsity of the appearance. It is easy to relapse, and these relapses are the very dangers which an incipient case must religiously avoid if he wishes to make a complete recovery.

Consumptives must be taught that gatherings of various kinds must be avoided, especially in winter, if they hope to go through without a break in their lung tissue. Closed street cars, churches, theaters and pool rooms harbor the infective agents which cause a complication known as mixed infection.

The patient should be taught how to take his temperature and pulse and be furnished with a regular blank on which to keep the records. This will keep him interested in the work and will furnish the physician with very valuable information. It also impresses him with the idea of accuracy and importance of the efforts, as well as the reasons for such care. He should be taught that as an incipient case he is not dangerous to his family associates.

Tuberculous patients should be provided with outside sleeping apartments and compelled to live in the open practically all of the time until cured. A person who has enjoyed the luxury of out-door sleeping will seldom ever wish to change, and we have little trouble along this line. Many different kinds of sleeping porches are to be had, the choice usually depending on inclination and the patient's financial condition. They should protect the sleeper from exposure and be dry, clean and exposed to sunshine. The south or west exposures are best for such purposes in this climate. If possible, the sleeping rooms should be close to the bath and a warm room for dressing.

The home management of advanced or mixed cases requires much greater care than incipient cases. In the first place they are the direct cause of the spread of the disease, because of coughing

and expectoration. In the second place they are not physically able to look after their own wants and must have almost constant attention, especially in the late stage. At this point, in the home management of consumption, we are in most instances practically helpless. In the ordinary case the family must care for the invalid. It is almost impossible to get help or nurses to stay in a home where a member of the family is bedfast with consumption. Doctors, themselves, do not make frequent or prolonged visits on a bedridden consumptive. We do not blame anyone for such action, because I would not nurse a consumptive in a private home over a long period of time for any kind of recompense. Consequently, the family is handicapped, no matter how much money they may possess. This means that the entire family turns nurse—adults and children as well; and, indeed, children are compelled to do most of the work. We know that this is not good sanitary practice, and that one or more of those people are going to contract the disease. It has been estimated that every person dying of chronic pulmonary tuberculosis infects at least three other people. I do not think this estimate too high. I know it does not conform to the laws of preventive medicine.

But what are we to do? We are compelled to limit the danger of infecting others as much as possible, by careful instruction in cleanliness and ordinary hygiene. The consumptive must be made to realize to the utmost that he is a source of danger to his associates unless he observes every precaution for their protection. He must dispose of his sputum in a sanitary way. He must not use the same toilet articles, dishes or utensils as his family. He must not cough or sneeze without covering his mouth with a napkin which can be burned or sterilized. He must not kiss or fondle his wife or children, and must always consider the fact that he has a disease which can be communicated to them by carelessness.

These "must rules" do not seem harsh to the sanitarian or physician, but are decidedly brutal to the average individual. Here is where strength of will power and character count. No coward will ever become a careful, clean and harmless consumptive. It requires constant endeavor and persistent determination for a consumptive to live the life necessary to be of no danger to his fellow man. If he is rich (and only the rich can afford to have the disease) he can provide the many things necessary to enable him to follow these plans, but the moderately well to do and the poor are in no position to avail themselves of these conveniences. Sputum cups, sanitary cuspidors, sleeping porches, fresh air, sunshine, good food and rest all cost money. It therefore follows that the poor man cannot help infecting his family and associates. It is not very far from the laundry to the linen drawer, nor from the cook to the dining table, and how often do we find chronic fibroid phthisis affecting servants in our homes. This is why consumption should interest the tax-payers of this state.

Physicians are helpless to prevent the spread of tuberculosis with the means at hand, and if the disease is to be stopped we must have institutions for housing and treating the indigent consumptive. The consumptives who can afford the services of good physicians and nurses do not belong to this class, because they are surrounded by comforts which rob the disease of most of its terrors. It is the ignorant, the poor, the careless consumptive individual, with a large family of children, who furnishes the recruits to this regiment of disease.

Life insurance companies recognize this danger and are protecting from infection the children in families insured by them. They are sending nurses into these homes, who teach prevention first, and give comfort to the sick second. This move on the part of industrial insurance companies is not merely from a humanitarian standpoint — they know that prevention of disease means fewer death claims. By reducing the possibility of infecting the other members of the family the insurance company continues to collect in place of paying out money. If such a method is profitable to an insurance company, why not to a state, city or community?

The cry of the times is for prevention, and this cry must be heeded. We are our brother's keeper. We must insist that this state, this city, this county, provide suitable and reasonable institutions for segregation, isolation and treatment of advanced cases of consumption. And until this is done we will continue to treat the same number of tuberculous patients.

There is no specific treatment for tuberculosis. This fact has led the medical profession into the field of therapeutic nihilists in regard to this disease. In this we have made a mistake. Good food, fresh air and rest do good, but they alone will not cure tuberculosis. There must be a systematic arrangement of every detail if we wish to cure our patients. True it is that Nature produces more cures of tuberculosis than doctors, but Nature has the advantage—she gets her case in the very beginning of the disease, while we are called in after Nature has failed in her efforts. Our business is much more difficult for the reason that we have to deal with a depleted vitality in addition to the disease.

The medical treatment of tuberculosis is corrective and symptomatic in the main. In this regard we have not made much progress; indeed, the treatment of a thousand years ago is practically what we recommend at the present time. We are no closer to a specific cure now than we were when Koch made his famous discoveries of the cause of the disease. There is no question but that tonics have a place in the treatment of incipient tuberculosis. I do not think creosote and the various antiseptic drugs do good. I am convinced that they do harm, in that they disturb digestion and interfere with assimilation. When we study the histologic construction of the tubercle we are surprised that certain claims concerning the value of different chemicals introduced into the circulation should have any recognition whatsoever in the treatment of this disease. The same may be said concerning the various inhalants and ozonators foisted on the public. The alcoholic concoctions selling for "five per" are disgusting, and should be classed along with gold bricks and other fakes. A good bitter ferrugenous tonic would seem to meet all requirements in routine treatment. All other conditions are symptomatic, and should be cared for by what is known as symptomatic medication.

For greater help we must look to artificial immunization. In preventing and curing mixed infections in pulmonary tuberculosis by artificial immunization, we do not present anything new, but only apply to this disease an old truth, known for years in bacteriology and pathology. The only question arises, Is it possible to immunize or cure these cases by this method? Koch gave to us our first idea in vaccine therapy when he introduced tuberculin for the cure of tuberculosis. While tuberculin has not proved the specific cure hoped for in the beginning, its value has been established and forms one of our best agents in stimulating increased resistance to the disease. We know from its long use that valuable results are obtained. The scientific principles in tuberculin are that of a vaccine, and differ little from the autogenous vaccine made from the sputum and which are used to combat mixed infection.

If it is possible to stimulate resistance to tubercle bacilli by the use of tuberculin, the same must be possible when dealing with other bacteria whose toxins have a similar biochemical activity. We have found that the vaccine made from typhoid bacilli produces artificial antibodies which protect the individual from typhoid fever. Also bacterins of the common pus-producing organisms cure and immunize. There can be no reason, then, why we should not obtain such results in mixed pulmonary tuberculosis where we have to deal with bacteria whose biochemical properties are identical. In this we have not been disappointed.

For several years autogenous vaccines have been made from the sputum of consumptives and administered with most gratifying results. It is not only possible to control the chills, fever and sweats of consumptives, but we are able to prevent hemorrhage and arrest the abscess formation by the use of bacterins. It is necessary to use concomitant autogenous vaccines in this work, because we seldom find the same organisms at work in any two cases. In addition to this, I have proved that we can immunize against la grippe by the use of influenza bacterins for a short time, and that repeated doses will carry an individual through the recurrent epidemics that are so common in our winter months. This is of the greatest importance in the prevention of mixed infections, because the influenza bacillus is usually the organism which paves the way for the entrance of the pus producers and liquefiers. These are the bacteria which break down Nature's barriers and cause the rapid extension of the process.

It is necessary that the patient have good reactions following these injections if any beneficial results are to be obtained. We cannot expect anything from immunization if all the machinery for producing antibodies be destroyed. Good results could not be expected in rapidly advancing second or in late third stage cases. There is more to be obtained in preventing these stages than in curing them, after they have advanced to the stage of hopeless destruction of tissue.

I do not advise the use of vaccines or any curative remedies in far-advanced cases, because we only bring medicine into disrepute by attempting or promising results in hopeless cases. The physician who places prevention in every dose of medicine administered to his tuberculous patients will have the greatest number of cures, as well as the confidence of the community in which he works.

In conclusion, permit me the following:

1. Our first duty as physicians in treating tuberculosis is to preach a new religion—the salvation of the child from infectious and preventable diseases.

2. That we demand with all our power a suitable place for advanced consumptives to be cared for until they die.

3. That we demand better medical supervision in the schools.

4. That the state is interested in and should be responsible for the protection of children living in tuberculous homes.

5. That children be taught the value of the laws governing health before they become victims of disease.

DISCUSSION OF PAPERS BY DRS. KEENE, POTTER AND DODDS

Dr. Angus C. McDonald, Warsaw: I do not feel able to make a thorough discussion of these three important papers. I simply wish to emphasize a few of the points that have been made by the essayists, especially from the viewpoint of the first, regarding tuberculosis in children and infants. I think we forget sometimes how very susceptible young children are to tubercular infection. It seems to me almost impossible to keep a young child in the home with a consumptive today, no matter how careful you are in regard to hygiene in general, without the child contracting tuberculosis.

There is an interesting case that has occurred in the last year in my own practice, where I allowed a male relative of the family suffering with tuberculosis to come into the house. He came there and was bound to stay—they were his only relatives—and they kept him for a week when they became alarmed, but it was too late. The child in the family developed tubercular meningitis and two months later died. I could recite several of these cases to show how very infectious tuberculosis is in infants.

Again, I want to say a few words concerning the diagnosis of tuberculosis in children. Diagnosis is not so easy a matter as we would think. The physical signs, in my experience, are very deceptive and very difficult to elucidate. How often we examine a case time and again and are at a loss to know exactly the definite findings. A case recalls itself to me. A child born of healthy father and mother began with a cough and fever when 6 months old. This cough and fever continued, but we were unable to find any physical signs in the lungs. The child died and no postmortem was allowed. In one year another child was born, and just about the same time developed a cough and fever, and died in about the same length of time. It is rather remarkable that in one year a third child was born, that also developed cough and fever, so I had a physician from the city examine the case and he made a diagnosis of cough from an enlarged thymus gland. This child died in six months, and the autopsy showed pulmonary tuberculosis. This illustrates what Dr. Keene has said: that these cases likely develop along the lines of the glands, where the tubercle bacilli enter the trachea, involving the lymphatic glands, and finally become tuberculosis of the lungs.

The von Pirquet test. I have had only one experience with this test and the child got well. I believe that this case was tuberculosis, as the von Pirquet test was positive.

As regards the tuberculin treatment, I wish to add my experience by saying that it has been very satisfactory. I begin with small doses, .01 mg., and gradually increase dose until 1 mg. or more is given in a period extending over six months or a year.

One point I wish to mention that Dr. Potter has omitted, and that is when to use tuberculin. He has omitted to say that it should not be used when there is fever present. After the fever has subsided, then begin with tuberculin in small doses. That, along with outdoor treatment, will surely get better results than we have ever gotten before in tuberculosis.

Dr. Thomas Beasley, Danville: These three papers are of great importance. They deal with the most important features of tuberculosis—its treatment, prevention and cure.

The paper of Dr. Keene is a splendid paper, because it calls particular attention to several features of tuberculosis in children which are frequently overlooked. He emphasizes the point of careful examination of the lower part of the thorax rather than looking for the disease in the upper part, as it is usually seen in the adult. Another point I would like to have him emphasize more is the fact that a great many of the cases of tuberculosis in children follow the acute infectious diseases of childhood. I think it would be well for the physician who takes a child through any acute infectious disease, especially measles, to reexamine that child from time to time for a period of from two to three months afterward, to be sure that there has not followed the acute infectious disease an infection of tuberculosis. By this method it would be easy to detect it early and so have better control of the situation. And in dealing with tuberculosis in children the physicians have now a much better chance to control the situation than in dealing with the disease when it appears among adults. The inspection of children in schools affords the inspecting physician an excellent opportunity to go carefully into the physical condition of the children's lungs and detect the disease early, that he does not have in dealing with adults.

I have just asked the gentleman in front of me whether we had a state law requiring the inspection of school children. Do we? (Answer: that it is an optional state law.) We should have a state law and competent physicians should be selected as inspectors, and this made an important feature of their work. The saving of the children, as Dr. Dodds has said, is very much like the work of the missionary in foreign fields. They care little about the adult; they do not expect to convert the Chinese and Japanese adults to the Christian religion; they are spending their time on the children and expect them to grow into the religion. That must be done in dealing with tuberculosis, and the most important place is in the school-room, with competent inspectors. Recently, in talking with a lady physician in this city, who is school inspector, I was impressed with the enthusiasm she is giving to the work,

and with the great opportunity presented in the inspection of school children for the detection of tuberculosis.

Dr. William S. Tomlin, Indianapolis: This certainly has been a series of papers looking well to the conservation of our children, and for the children we expect not only their education in the prevention of tuberculosis, but the education of the children's children.

A great many important points have been brought out in Dr. Keene's paper, calling our especial attention to the many mistakes of our former text-books, and to many points that have been overlooked in our daily routine of practice in looking for tuberculosis in children. Among these, two points have not been mentioned in the discussion. I would like to lay special stress on the fact that the site on which you can put your finger in tubercular infection is by no means the point of entrance of that infection, and the man who in examining these cases follows routine examination, looking where he has found infection before, will be falling into greater and greater error.

In the prevention of tuberculosis, in the home treatment, Dr. Dodds has taken up some very important points which we have seen emphasized in many cases. I remember in this city one family especially, where the mother had tuberculosis and lived until she was 70 years of age. During that time she had two daughters, a son-in-law and a grandchild who died of tuberculosis, and within the last year another son-in-law died of the same disease. Four of the cases died before she did. It was one of the cases that we used to call phthisic, and had been so diagnosed in early days by her family physician.

In order to teach people the value of home treatment, the great point is education. I have found the greatest difficulty, not only among the poor (those poor in purse as well as mentally deficient), to have them understand the importance of caring for themselves, but also among people of intelligence. As a matter of fact, it may be said that if an individual has a special aptitude in some particular line he is not unlikely to be short in others, and so I have found in business life that those who were eager in financial pursuit were the hardest to make understand the importance of the family, of his business associates and the people with whom he came in contact, to protect them from the infection of tuberculosis.

About the tonsils as a point of entrance for tubercular infection, Dr. Keene and I have had some difference of opinion, and there has come to my notice recently, in addition to my own experience and observation, some valuable statistics which have confirmed me in my opinion, at least seemingly adverse to Dr. Keene's conclusion, that the tonsils are a frequent point of entrance for the infection.

Dr. Severance Burrage, Indianapolis: The matter of home treatment of consumption is one which interests me very greatly, and I have one or two things in mind which were hinted at in the paper, which it will not do any harm to emphasize more.

We come of a sudden to find a case of tuberculosis in the family, and if we are a member of that family there is a sort of woe-begone feeling comes over us as to what we are to do, for it is a difficult matter to properly treat a case in the home. The best way, it seems to me, for a case to get good home treatment is to first get it at a properly conducted sanitarium, public or private. Give them a few weeks to get the habit, then they can go home and know what to do. We find a lot of patients that if you instruct them to open the windows will close the windows the minute the doctor is out of sight. They do not believe in it, and I think there are some doctors that are a little bit afraid of fresh air themselves. I believe it is the function of every community and every county in our state to have an institution of its own where patients can be sent to learn the habits of home treatment. Then they can go home and conduct their own treatment; they can instruct others in the home how to treat them. I believe every community, furthermore, should have a hospital or home for incurable consumptives. We do not know what to do with our incurable consumptives; we have no place to send them. The state sanitarium will not take them; hospitals will not take them. We ought to have a home for incurable consumptives where they can be properly treated and cared for and made comfortable in their last days. In that way you will protect the community from further infection.

It is one of the policies of the National and State Association for the Study and Prevention of Tuberculosis to further this point, and we want every community to take the matter up through some organization of that community and have these sanitaria established, so that the sick ones will not have to go a long distance from their relatives to be treated; so they will be properly cared for in their own community and at the expense of their own community. I think it would be to the benefit of the physicians to take an active part in this campaign.

Dr. B. H. Perce, Anderson: This subject is certainly very interesting and has been aptly put by all of the essayists as well as the discussants, but there seems to be a paradox in the papers, and that is urging the use of fresh air, continually urging it, and at the same time another speaker at this morning's meeting exhibits cases here cured without any air in the lung. That is, to exclude the air from the lung and give it rest. That is a seeming paradox, but nevertheless I am satisfied they are both correct. Fresh air for those in the incipient stage, and when they get to the condition of these cases exhibited, then compression comes in.

The last speaker spoke about using the hospital for those who are incurable. Can any man say when a case is not curable? Seven of my mother's sisters and brothers died of tuberculosis. My mother had it and a brother had it. Both of these were cured by fresh air, without the help of a doctor, thank the Lord. My uncle is living now at the age of 93, and my mother died at 93 from fractured hip. Who can tell when a case is going to be cured? That is the question.

Dr. G. W. McCaskey, Fort Wayne: It would certainly be no exaggeration to say that the subject under discussion now is the most important one which can be brought before any medical society.

I wish to limit what I have to say on the subject to treatment. We have gotten beyond the point where any discussion as to the infectiousness, the communicability of tuberculosis, is necessary. These points have long ago been settled. In regard to the treatment, I want to come squarely to the point. What is the object of all treatment of tuberculosis? Briefly and in one word, I think everything which has to do with the cure of consumption can be embraced in one phrase—to increase the body's resistance to the disease, or, in other words, to increase the quantity of antibodies which the circulation contains. How can we do this? In the first place, by those modes of treatment which have been recognized from time immemorial—fresh air, ample nutrition, hygienic surroundings.

I think there is no question whatever but that in tuberculin we have one of the greatest aids, if we begin the treatment of tuberculosis with doses sufficiently small, certainly not greater than 1/10,000 of a milligram. I have not been in the habit of beginning with quite so small a dose as Dr. Potter recommends, but I would approve of it absolutely. There is nothing to be lost by it, and something may be gained. The interval should be long enough to allow the dose to act positively. If this is done, it seems to me there is no question whatever but that by the use of tuberculin we can increase the resisting power of the body against tuberculosis.

As to the form of tuberculin to be used, I have varied my practice considerably. I used to use the old tuberculin. Later I alternated the old tuberculin and the emulsion, but if what Dr. Potter has said is correct, I still maintain that the tuberculin treatment is the rational treatment to-day. The emulsion contains all that the old tuberculin contains, and it contains something that the old does not, and therefore I believe the rational treatment for tuberculosis in the future is not the old tuberculin, but the bacillus substance itself, and that it should be used as the modern vaccine treatment, along the lines laid down by Wright in his experience and observations.

Dr. R. L. Sensenich, South Bend: I want to call attention particularly to some work that has been done in one of the London hospitals by their radiographer. This work goes to prove our belief of a great many years that practically everyone after 20 years of age has suffered from tuberculosis infection—mild, perhaps, and without having given rise to serious symptoms, but still tuberculosis infection. If such is the case, and 7 per cent. die from tuberculosis, then tuberculosis is certainly a most curable disease; much more curable than any other of our infectious diseases, when you consider the tremendous numbers of those suffering from it.

In addition to that, there has been a great deal of discussion as to the proper treatment, and particularly with reference to climate. I was very much interested in a paper which was read at the International Tuberculosis Congress, in Rome, by Dr. Vorsanger of San Francisco, in which he analyzes the results in the different sanitaria in California and on the Pacific Coast, in comparison with results accomplished in sanitaria that are presumably more favorably located. From this I note that the most favorable results are the apparently cured and arrested cases; and in the second place, the fact that some of our apparently cured cases probably are only arrested. These cases have been under observation for three years. The best results were 55 per cent. from the Pottinger Sanitarium at Los Angeles; second, from the Barlow Sanitarium; third, 49.9 per cent. from Dr. Vorsanger's own cases, and these were taken care of in San Francisco, at an altitude of only 1,800 feet above sea-level, a very damp atmosphere, and one which heretofore had been considered too moist for tuberculosis. The United States Army, at Fort Bayard, at an altitude of 6,000 feet, has only 6.7 per cent. This is probably due to the fact that most of the cases sent there are chronic cases. However, the fact remains that this was in a climate that heretofore was considered almost an absolute cure for tuberculosis, while Dr. Vorsanger's cases were treated at home and in a local sanitarium, and they have done practically as well as those in sanitaria more favorably located. All of the men in the West agree that change of climate is advisable only for the few selected cases—those cases who can stand the trip away from home and where financial matters are not a question for consideration, and this leaves a vast army of tuberculous cases to be taken care of in our own communities, either at home or in local sanitaria. In South Bend we have had for five years a tuberculosis sanitarium, begun first by local subscription, but during the last two years under the financial help of the county.

Dr. A. C. Kimberlin, Indianapolis: Just a word in regard to tuberculosis in children. If we give more attention to the anatomy of the lymphatics of the upper thorax, many things become very plain. The general impression that the lymphatics of the cervical region drain directly into the mediastinum is not true at all. The lymphatics of the upper third of the nose

drain back through the meninges; the others, including the cervical and submaxillary and the whole of the mucous membrane of the mouth, unite and go directly into the main lymph-trunk, where it is immediately poured into the pulmonary circulation. This explains why in many instances we have a tuberculous infection with no focal symptoms. We should keep this in mind.

What I have especially to say is this in regard to the matter of vaccine treatment: Some time ago we spent a great deal of time trying to solve the opsonic index. We forget that the rank and file of medical men do not work at their maximum capacity for good because of too much technical teaching. Remember, when you have a patient with tuberculosis, the first thing to do is to rest him, and you are at once satisfied in seeing his temperature go down. It is one of the best tests as to the disposition to be made of a given case suffering from incipient tuberculosis. The same thing is mentioned by Dr. Potter in his paper by the use of an injection of virus. They watch for a rise of temperature and other symptoms brought about as a result of exercise, by means of graded exercise. Not every man treating tuberculosis has a laboratory in his vicinity, but he can make one of his patient.

The psychologic management of these cases. The most painful failure is the physician who is able to make a diagnosis of tuberculosis, confirms it in every way, and then tells his patient he must go West or put himself in some institution, because his case is hopeless. The condition of the family and their financial resources are just as essential in the management of a case as to make a correct diagnosis. You cannot forget that mother with her children, or that husband who has a very limited income, and say here is a case calling for sanitarium treatment—and no more. You must offer something that is comforting, that is encouraging. If you take away their hope and confidence, I do not care what your treatment is, it is very difficult to move that man into the essentials of cure. Hence, we do a very great wrong in sending our patients away. The physicians in the West are good, and they have the advantage of climate, but we have practically the same thing; and, as stated a moment ago, we must train and educate them at home or in well-regulated sanitariums and give them some attention ourselves, and assure them if they subscribe to certain regulations and requirements it will bring them results quite equal to the most scientific treatment that can be had, either at home or away in some other climate. We do not get close enough to these patients in their psychological management.

Dr. S. E. Earp, Indianapolis: I will try not to reiterate what has been said before, but I take it that Nature is the cure for tuberculosis in every child. The fact that tuberculosis follows infectious diseases, I doubt not, and the reason that Dr. Keene called attention to measles is because when you see a child that is broken out you recognize the fact that that is an attack of measles; but when they have influenza you do not know anything about it, and there are thousands of children who have influenza that are neglected, and Nature cures many of these cases and they have been called a bad cold. They get well, and many of them have been cases of tuberculosis, and therefore statistics like that cannot be brought up, as Dr. Keene has brought them and applied to measles. I do not doubt what he says is true, but I would say all of the infectious diseases, and not only measles, particularly in children.

Naturally, we wonder why it is that we have not had the subject of tuberculosis in children taken up before. There is no question but the child can be treated better than the adult, but the trouble is we do not find the cases of tuberculosis in children because of neglect. They have a cold for an indefinite time; they get well and we do not know it. The recuperative power is far greater in a child than in an adult, and therefore the care of all cases is a question of nutrition. If you will follow a proper diet, plus the other things which assist, the child will get well, unless it is in the last stages. Therefore, I think the emphasis placed on the treatment of tuberculosis in children is most timely.

Dr. L. P. Drayer, Fort Wayne: I think the reason we do not know about the location of tuberculosis in children is because we have not looked for it in the right kind of way. I want to say to you that I believe ninety out of every hundred children that are brought into the doctor's office are examined through anywhere from one to six layers of clothing, and if you will allow me to make a suggestion, it is this: the next child that is brought into your office for examination, strip it. You may find a lot of pathology that the mother cannot tell you about and that you never dreamed of. Perhaps we will find cases of tuberculosis if we will examine for them.

If Dr. Keene would lead us to believe that it is not a good thing to cut out adenoids and large tonsils in order to prevent tuberculosis in children, I am against him; if he would lead us to believe that it is best not to cut out these large tonsils, I am against him. If, on the other hand, he is raising his voice against the unscrupulous massacre of tonsils, I am with him. I want to say to you that the large tonsil or adenoid in relation to tuberculosis is a thing for us to consider, and we should take the child with the large adenoid and watch its development and see whether it throws it off. I grant that infection does not enter through the tonsil, and many other things must be taken into consideration. But I insist that we should not allow these children to grow up as mouth-breathers, because of the simple fact that

they cannot get enough fresh air, properly aerated, for the lungs.

Then, we want to know how to diagnose tuberculosis in babies and children. I believe that the von Pirquet test is an invaluable test, if properly made—the most valuable diagnostic test that has been given to us in the past ten years.

Dr. Keene (closing): I had meant in closing to take a few minutes in making a summary of a portion of my paper that I did not get to read, but I shall use it in explaining away so-called paradoxes. The paradox is far more apparent than real. It was not my fortune to hear the paper this morning, but I think I know its message, as I am familiar with that line of work. It is a well-established surgical principle to put an injured part absolutely at rest. If you have a broken arm or fractured wrist, you put it at rest. If you have a boil in the axilla, you put it at rest, and in like manner if you have an inflamed lung, if you could put it at rest you would benefit it enormously; but the lung must operate, and every operation violates the first law of Nature. The purpose of that procedure is to surgically immobilize the lung so the individual can by breathing expand and contract the lung. When this is secured you secure surgical rest of the inflamed or injured part, and theoretically it is a handsome procedure. Practically, I do not think it has given much result. There is absolutely no violation of the time-honored theory of fresh air in the treatment of tuberculosis in this practice of placing the lung to rest; there is no paradox.

In a few words I wish to emphasize the conclusions of my paper. Statistically, it is proved that infectious diseases are dangerous because of the fact that tuberculosis often follows, first, measles; second, whooping-cough, and third, influenza. Diphtheria has apparently a slight protective capacity, for 100 cases of diphtheria recoveries will show fewer cases of tuberculosis than 100 cases that have not had diphtheria.

Personally, I consider the von Pirquet test thoroughly reliable as a diagnostic measure in children, and it should be used in all cases of recovery from measles once in every three months for at least a year.

Dr. Potter (closing): There are a good many things about the tuberculin question that are interesting and instructive, but there are several that are of vital importance. In the first place, I will ask you to remember that tuberculin is a toxin, not an antitoxin, and with every dose you put into a man you put a toxin, and any resulting good is from the capacity of that body to react favorably to that toxin by the production of antibodies.

In the second place, do not imagine you are doing good service by increasing the doses, for tuberculin tolerance and tuberculin immunity do not correspond. You may immunize a person a thousand times over, where he can stand a thousand times the ordinary dose, but you do not get one thousand times the immunizing effect. Therefore, dosage and immunity do not go together.

In the third place, the important thing to remember is that there is no good ground for expecting much of anything from tuberculin treatment unless it is long continued—where it is a gradual process and long continued.

Dr. Dodds (closing): I wish to thank you for the liberal discussion of these papers. I also wish to say that we must have in this state better medical inspection of schools, and we must have a place where we can send the poor, indigent consumptives to die in comfort. We are taking care of our hogs and chickens and wheat and apples and reclaiming the swamp lands, but we are letting our children die of tuberculosis because we do not take proper care of them and instruct them properly.

BRILL'S DISEASE *

Etta Charles, M.D.

Summitville, Ind.

In 1896 Brill noticed a type of disease occurring in the summer and fall months, similar in type to typhoid, but with many features totally different. First the course was shorter than typhoid, the temperature ran higher and ended abruptly; there was a maculopapular eruption that did not disappear on pressure, and absence of the Widal reaction. The agglutinin test and the examination of the blood of the spleen were negative. Since then Brill has collected 221 cases. In 1910 he described in the *Archives of Internal Medicine* what he termed an acute infectious disease of unknown origin and unknown pathology, characterized by an incubation period of four or five days, a period of continuous fever, accompanied by intense headache, apathy and prostration, a profuse and extensive maculopapular eruption, all of about two weeks' duration, when the fever abruptly ceases, either by crisis within a few hours, or rapid lysis within three days, when all symptoms disappear.

Brill's Symptomatology: After a period of three or four days during which the patient suffers from malaise, anorexia, nausea and slight headache, the disease begins rather abruptly, many times with a chill. This is followed occasionally by vomiting, pains in body or back, and sometimes epistaxis. The headache becomes in-

* Read before the Madison County Medical Society, Oct. 29, 1912.

tense, and prostration follows the rapidly rising temperature. The fever reaches its height in two or three days and remains constant with a range of not more than one degree. The patient lies quiet because of the great pain in his head that is increased by every movement. The eyes are dull and conjunctivae congested, malar prominences flushed, tongue coated and moist, skin hot and dry.

From the fourth to sixth day a maculopapular rash appears over abdomen and back, slowly spreading all over the body and may cover the palms of the hands and soles of the feet. The bowels are obstinately constipated as a rule, the pulse full and slow, not nearly so rapid as might be expected from the high temperature. These symptoms remain in full development until the twelfth day, when the temperature drops, the rash fades, apathy and prostration vanish and the patient feels perfectly well.

Brill gives the differential diagnosis from typhoid fever at great length, remarking that the resemblance to typhus is most striking. On the publication of Brill's observations and conclusions, Anderson and Goldberger, of the Hygienic Laboratory in the City of Mexico, being struck by the clinical resemblance between Mexican typhus and Brill's disease, undertook investigations to establish, if possible, the relationship between them.

The blood of three patients who were ill with Brill's disease in New York was obtained and inoculated into monkeys, which developed characteristic symptoms of infection, and the infection was carried through many succeeding monkey-generations by inoculation of the blood.

They reported that one attack in every instance thus far treated conferred immunity to infection by subsequent inoculation of virulent blood. As a result of these experiments, it was shown that an attack of Brill's disease in the monkey confers an immunity to subsequent infection with Mexican typhus.

The conclusions naturally would be that the diseases are identical. Brill says that he believes that European typhus, Mexican typhus and Brill's disease have a relationship which only knowledge as to their infective agents can clear up.

Anderson and Goldberger also declare their belief that the disease is transmitted in nature by the body louse, as they demonstrated by experimentation that typhus may be given to monkeys by the bites of body lice which have previously bitten human patients suffering with the disease or monkeys that have been infected with it in the laboratory.

The editor of *Jour. A. M. A.* says editorially, "typhus fever has undoubtedly been present in certain districts and some of our large cities for a number of years, and while the disease is mild in character it is important that its manifestations should be recognized by physicians generally."

Brill says while the disease resembles typhus, he thinks it not typhus because of its sporadic and non-contagious character.

I was called to see a patient Sept. 19, 1911. He had come into town some time in the night from Toledo, that being his home. He said he had a chill on Wednesday, previous to which time he had felt perfectly well. Occupation, bartender. On Thursday he had consulted a physician who told him he might be taking typhoid fever and asked him to report if he felt no better. On Friday he was no better so concluded to come to Summitville where his wife was employed.

When I saw him at 9 a. m. his temperature was 103. At 4 p. m. it was 104, tongue moist and coated, he expressed himself as "all in." His eyelids were puffy, conjunctivae congested, eyes suffused, malar prominences a dark red. There was no abdominal soreness nor tenderness; bowels constipated; over the abdomen was a maculopapular eruption that spread over the back, was a dull red, somewhat elevated and did not disappear on pressure. He had anorexia, but the most distressing symptom was an intense headache. The next day the temperature was 104 in the morning, 105 in the afternoon, the next day it went to 106, dropped down to 104½ and hovered around there for ten days after he came into my hands. The eruption gradually spread over the body except the face, palms of the hands and soles of the feet. The intense headache could not be relieved; he would lie for hours in one position fearing to move least he increase the pain. He begged his wife not to bathe him for the same reason. Three Widal tests were made with four day intervals with negative results. The twelfth day the temperature was 101. The fifteenth day from initial chill the temperature reached the normal; the sixteenth day he sat up all day, the skin was as clear as though he had never had an eruption and the temperature remained normal. The eighteenth day he came to my office, saying he felt well, but weak. The twentieth day he left for Indianapolis, where he said he had employment.

The pulse at no time went above 108, and nearly all the time was 100, was soft and did not have the bound of the typhoid pulse.

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EDITORIALS

PITUITARY EXTRACT IN OBSTETRICS

Within the last two or three years the American obstetrician has had his attention engaged by the promising results obtained by the use of the extract of the infundibular portion of the pituitary gland in certain difficult cases of labor. Up to within the very recent past, such reports have emanated largely from foreign countries, particularly Germany and England, but now experimentation and literature obtaining in clinics of our own country are available for a rather extensive study of the subject. A rather interesting discourse on the use of this agent in inertia uteri appears in the September number of the *American Journal of Obstetrics,* by O. P. Humpstone. The author emphasizes the fact that the power of contraction of the uterus is that factor in labor over which we have to-day the least control, and it is for this reason that he particularly welcomes any contribution offering help in this particular.

Dale, in 1906, discovered that the extract of such portion of the gland injected intravenously into a rabbit would cause contraction of the uterus similarly to ergot. In 1909, Bell read the first clinical paper on the therapeutic value of the infundibular extract in shock, uterine atony and intestinal paresis. By its use he observed powerful contractions in the puerperal, pregnant and menstruating uterus and a rise in blood-pressure. He also cited two cases of Cesarean section in which the injection produced striking results, and noted success in all cases of post-partum hemorrhage from atonic uteri. He believed, however, that it was rarely indicated before the onset of labor. In 1910, Aarons also contributed a paper on the subject and declared that the uterus contracts better and more quickly in normal labor with pituitrin than with ergot. His cases included instances of post-partum hemorrhage, intestinal paresis and urinary retention. Hofbauer, reporting sixty-six cases, found the results to depend on the quality of the preparations and the method of injection employed. Old preparations and alcoholic ones were not as effective and intra-muscular injections should be the route of procedure. His dosage was .5 to 3 grams, and no toxicity was noted. Although there were no kidney complications, he did not recommend its use in nephritis or myocardial disease. In his hands the agent was most effective in the second stage wherein the results were brilliant even in the presence of a somewhat contracted pelvis. Ross confirmed Hofbauer's results and declared that pituitrin could not be excluded from obstetrical therapeutics, saving time, needless forceps and physical exhaustion both for the patient and physician. Kroemer found a diminution in the amount of bleeding in two cases of Cesarean section treated with pituitrin.

While Gottfried reported some brilliant results, he also mentions five cases in which the injection proved of very little, if any, advantage; while Pfeiffer, passing his opinion on an experience with a case of eclampsia, declares that kidney insufficiency is a contra-indication to the use of pituitrin. Bondy reported positive results in eight cases, doubtful in one and one a total failure, but considers the agent of distinct value in prolonged labor or loss of labor pains. He records eight cases in which the length of labor before the use of pituitrin averaged thirty-six hours and after its use, twenty-eight minutes.

On an experience of 118 cases at the Prague clinic, Schmidt concluded that pituitrin is the best of all drugs for the treatment of post-partum hemorrhage, it being superior to ergot in that it may be administered before the separation of the placenta. He believes it to be the only infallible means of producing contraction in inertia uteri, and remarks that rapid labor and little hemorrhage are the results of its administration.

Frees also observed decided benefit in promoting engagement in slight degrees of pelvic contraction. The same experience was observed by Vogt, and Hahl reports some further favorable results in Cesarean section.

The author ascribes the failure of Parisot and Spire to their use of an extract from the whole gland rather than the posterior portion.

Humpstone bases his conclusions on the use of the drug in sixty-four selected cases from the last 525 coming under observation since September, 1911. Though he believes the drug to be a potent agent in causing contractions under certain conditions, he has also observed it to fail completely sometimes, the cause for which he does not know. However, when properly administered, he has found it so satisfactory that he gives it a definite place in his obstetrical thera-

peutics. Its chief indications he believes to be inertia uteri, post-partum hemorrhage, Cesarean section and in preventing and during shock, and declares that it has no place in normal labor. No untoward results either to mother or child have been observed by him. He believes the vaperoles or ampules containing single doses to be superior to the bulk product, since it is possible that the latter preparation may suffer deterioration from age or exposure.

Since digestive juices destroy its activity, the hypodermic or rather intramuscular route should be employed in doses ranging from .1 to 1 gram. The author has come to use .4 grams (4 c.c. commercial pituitrin) as the initial dose, to be repeated every twenty minutes for three doses if necessary, whereupon if no results are obtained the drug is forsaken. The objection that pituitary extract raises blood-pressure and is hence contra-indicated in labor has not been a serious one in the author's experience since the highest elevation he observed was twenty points and the average only eight. Naturally a high initial blood-pressure or any considerable lesion of the heart or kidneys would be contra-indications to the use of the drug.

While in early pregnancy pituitrin causes uterine contractions, so far it has not acted as an abortifacient.

As for its action in the middle period of pregnancy, its effect seems to have been that of hastening materially the dilatation after the introduction of a bag. In the first stages of labor the author would not use pituitrin unless it had been necessary to introduce a bag or to do Braxton-Hicks version for placenta praevia. He believes quieting efforts and time to be far better treatment than pituitrin for the nagging pains of an ordinary case of delayed first stage, but with a cervix shortened and dilated to three fingers or over wherein engagement fails for want of effectiveness of labor pains, he finds the effect of the drug most striking and satisfactory. Within five minutes from the time of the first or second contraction the character of the pains entirely changes to stronger, closer and longer efforts. A very striking example is cited of a case of inertia with threatened death of the fetus, and wherein forceps application would have been most difficult because of lack of engagement, being converted into a well engaged easy forceps case within an hour from the time of injection. The same experience has been repeated eighteen times by the author.

Likewise in the second stage of labor a slightly lacking vis a tergo is overcome enabling molding through a slightly disproportionate pelvis or from a previously tired uterus to take place with much more rapidity. A simultaneous hypodermic injection of 1/20 grain of strychnine enhances the effect of the pituitrin in this class of cases.

In the third stage of labor, and in the absence of a uterine inertia pituitrin causes an earlier separation and quicker expulsion of the placenta, but was not employed as a routine by the author, because of his greater confidence in the quiescent period of twenty minutes plus Credé and ergot as effective factors in the prevention of hemorrhage and lack of restitution. Previous hemorrhage due to uterine inertia is a greater indication for ergot than for pituitrin because of its greater content of tonic pressor producers. Pituitrin, however, does stimulate prompt contraction and aids in preventing the shock accompanying post-partum hemorrhage and in the involution of the atonic uterus. The author warns that pituitrin employed in early labor with inertia must be repeated in the third stage in order to prevent hemorrhage due to the transitory effect of the first injection.

In the puerperium the author feels that involution has seemed more rapid in those cases treated with pituitrin during the latter part of the labor, and in no such cases has he observed urinary retention, although the agent has not been employed to relieve such condition.

In Cesarean section, Humpstone has reserved his pituitrin until the sutures are placed in the uterus because of an experience in one case wherein contraction was so prompt that the sutures could not be placed accurately and later considerable hemorrhage into the abdomen occurred beneath the peritoneum over the uterus.

A feature in pituitary therapy in obstetrics not brought out by Humpstone is that emphasized by the contribution of Reynolds in the October number of the *American Journal of Obstetrics*, namely its striking value as a galactagogue. His contribution consists largely of a report of six cases in which the injection of the gland substance was followed by an increase in the flow of milk in some cases and in the promotion of better involution with subsidence of puerperal hemorrhage in others. His conclusions, based on his experience with pituitary extract, are worthy of quotation: "It is inactive in the presence of fever. It is a powerful galactagogue. It stimulates uterine contractions in from fifteen to thirty minutes after being injected intramuscularly. It causes a rise of blood-pressure and slowing of the pulse, the highest pressure occurring between twenty and thirty minutes after the injection. It does

not cause an inflammatory reaction at the site of injection or any noticeable nervous symptoms."

It would seem from this and other reports in recent American literature on obstetrics and gynecology that not only is there an intimate relation between the thyroid, adrenal and pituitary glands and the female generative organs, but that the pituitary gland itself, particularly the infundibular portion, has a distinct selective action on the uterine musculature. So far such reports seem to indicate very definitely just what these effects are in the majority of cases, and if the reports of larger series of cases seem to bear out the present experience, there is reason to believe that we have in pituitary extract a very potent factor in dealing with certain well selected cases of uterine inertia, post-partum hemorrhage and insufficient milk-supply.

THE WORLD'S MARCH OF A PROPRIETARY

The rather extensive advertising campaign of a new "ethical" consumption "cure," in which great virtues are ascribed to the effect of radium, makes timely the following account of its introduction:

Dioradin, a new consumption cure, was discovered in Budapest, Hungary, by Dr. R. de Szendeffy. Its exploitation appears to have been entrusted to a physician of France, Dr. S. Bernheim, of Paris. Our attention was first called to it by a protest from the London *Lancet* against the newspaper publicity which it was receiving in England (*Jour. A. M. A.*, Aug. 19, 1911, p. 659). Next it appears to have attracted attention in Holland, for E. H. Büchner, Privat docent of the Science of Radioactivity, University of Amsterdam, reported in the *Pharmaceutisch Weekblad* that he found a specimen to be most deficient in radium (*Mich. State Jour. of Med.*, June, 1912, p. 358). A few months ago, we heard of it in Germany, for the German Congress of Internal Medicine, in the *Therapeutische Monatshefte* (*Jour. A. M. A.*, Aug. 17, 1912, p. 549) protests against the manner in which Dr. Bernheim made use of the fact that he had read a paper on Dioradin before the congress. And now comes a report from the Council on Pharmacy and Chemistry of the American Medical Association, announcing that, after due consideration, it has been refused admission to New and Nonofficial Remedies. (See Truth about Medicine Department of this issue.)

It will be but natural, should it next be heard of in China or Japan, particularly since some trials of it, very favorable of course, which appear to have been made in New York, have been published in the *Southern California Practitioner* (September, 1912, p. 443). On the other hand, it may be eastward bound, for the same article which appeared in the *Southern California Practitioner* has also appeared, as an original contribution, in the *Medical Herald* (October, 1912, p. 524). Dioradin truly is an international proprietary!

OUR MENTORS MEND THEIR WAYS

Taking advantage of the American Medical Association's propaganda for reform in proprietary medicines and its aims toward rational therapeutics, the National Association of Retail Druggists has made strenuous efforts to induce physicians to prescribe, instead of the so-called "pharmaceutical specialties," the similar and equally complex mixtures of the Pharmacopeia and National Formulary. While it is our opinion that a physician is just as liable to overestimate the virtues and to underestimate or forget the dangers or drawbacks of a drug when he prescribes it as a complex official mixture as when he uses it in the form of a proprietary, the official mixture at least has the advantage of being of known and constant composition—for there are laws which make it unprofitable to dispense official preparations which are not true to formula. For this reason the pharmacist's propaganda deserves our support, at least to some extent. When, however, the organ of the National Association of Retail Druggists attempted to palm off the shot-gun elixir of turkey corn, stillingia, prickly ash and blue flag with a little potassium iodid as a remedy of miraculous virtues, we were constrained to protest against the impertinence of pharmacists in posing as our teachers of therapeutics (The Journal, June 15, 1912, p. 275). Although *N. A. R. D. Notes* has not taken our criticism kindly, it nevertheless appears to have recognized the justness of it, for we are pleased to note that in its recent "Propaganda Notes" appears to have more nearly confined its arguments in favor of official preparations to their reliability, permanence, elegance, etc.—subjects on which the pharmacist has a right to be heard.

Of course one cannot expect complete reform on short notice. While we are inclined to protest, mildly at least, when (*N. A. R. D. Notes*, Oct. 10) incidental to the boosting of the glycerinated elixir of gentian—an imitation of the nostrum, Gray's Glycerin Tonic—we are told in regard to

glycerin that its remedial power in diabetes, its germicidal action and its nutritive value have been recognized for years, nevertheless the change for the better deserves commendation.

It will be to the credit and advantage of pharmacy if pharmacists will recognize that it is their business to supply the drugs which the physicians need in their practice.

EDITORIAL NOTES

Anything in the line of physicians' supplies or equipment may be obtained from advertisers in *The Journal of the Indiana State Medical Association.* Patronize these advertisers for it means a continuance of their advertising patronage, and the latter means a larger and better Journal for you.

At the December meeting of the county medical societies an election of officers will take place. Again we desire to emphasize the importance of selecting the right kind of secretaries. If any county medical society has an energetic and enterprising secretary, then keep him in office, even if you have to serve a writ of attachment. But if the secretary is apathetic and inactive, then by all means drop him and elect a new one.

Some of the prominent men in the medical profession must feel a little cheap in this day of medical and ethical progress to see their lavish endorsement of nostrums, given many years ago, used by the exploiters of the nostrums as a means of advertising. The man who is tempted to give an endorsement of any preparation, the mode of manufacture and constituents of which are unknown to him, had better resist the tempter and say, "Get thee behind me, Satan."

Dr. Chas. P. Emerson, Dean of the Indiana University School of Medicine, says that Indiana is among the leading states to enforce the morality qualifications of students who are candidates for a medical degree, for the university will not graduate a medical student, no matter what his educational qualifications may be, if he is not up to its standard morally. This is a stand that is in the interest of higher and better things, and Dr. Emerson should be supported in it.

We are decidedly of the opinion that it is advisable to invite guests from outside of the state to present papers before our Association. We do not believe that the invitations should be extended promiscuously, or that more than one invitation from each section should be extended for any one session. But it cannot be doubted that it is a good plan to have the stimulating influence of outsiders to spur us on to better work.

The creation of an Eye, Ear, Nose and Throat Section in the Indiana State Medical Association is a distinct step in advance, as evidenced by the interest and enthusiasm displayed at the Indianapolis session. The section program was of practical as well as scientific interest and brought out a splendid discussion. The attendance indicated the need of the section to interest the specialists, for never in the history of the Association have so many specialists attended an annual session or taken as much part in one of the Association's programs.

In this issue of The Journal we publish a letter from Dr. Kemper concerning Indiana's one hundredth anniversary and the plans that are being formulated by the Centennial Committee for appropriately commemorating the event. Dr. Kemper makes an appeal for the appointment of a historian for every county medical society. It is hoped that the medical history of Indiana, with a record of the names, works and achievements of the medical men who have helped to make medical progress for the state, will form a part of the centennial exhibition.

Now that the sections of the Association have their own officers, it is entirely proper that the scientific program for any individual section shall be in the hands of the officers of that section. These officers should make a strenuous effort to secure the best possible program from volunteer contributions as well as from contributions by special invitation. The programs should be limited to only such number of papers as can be thoroughly and comprehensively discussed. This means that not to exceed five papers should be listed for any one meeting.

County medical society secretaries are urged to report deaths of medical men in their respective counties to Dr. G. W. H. Kemper of Muncie, necrologist and historian of the Association. If obituary notices are not sent to Dr. Kemper, they should be sent direct to The Journal, for it is intended to publish an announcement of every death of medical men in Indiana.

Attention is called to the matter of furnishing personals and news notes for publication in The Journal, and every member of the Association, but the secretaries of county medical societies in particular, are urged to furnish such items of information as are thought of interest to the general medical profession of the state.

One of our correspondents has sent us some patent medicine made by the Dr. Matchett Company, of Bourbon, Ind., and a catalog of the Bourbon Fair Association in which is a double-page advertisement of the Dr. Matchett Company. Attention is called to the fact that the doctor, whose name is connected with the company, is a member of the Board of Health, and otherwise deports himself as a member of the medical profession worthy of confidence and respect. It occurs to us that the breach of ethics and propriety should receive consideration at the hands of the medical profession of the county in which the offender resides.

"Bits of Glass" is the title of a story which appears in *Collier's Weekly* under date of November 2. In short, it deals with the beneficial effects of spectacles, but the point to which our attention has been particularly called is the description of the manner in which errors of refraction are determined. In the story the doctor is shown to have employed not only retinoscopy in the determination of errors of refraction, but he employs what every intelligent physician knows is necessary for accuracy in work, complete cycloplegia. Even in story form, the public is thus given correct information concerning one of the practices which has been so shamefully abused by the optician and spectacle vender.

The *Ohio State Medical Journal*, published by the Ohio State Medical Association, continues to be a disgrace to its owners and publishers by carrying about as rotten medical advertising as it is possible to obtain. In this fight against nostrums what can be expected when medical associations will own and circulate a journal that is largely maintained by the profits secured from nostrum advertising? Every self-respecting medical man in the state of Ohio ought to refuse to accept the *Ohio State Medical Journal* until its advertising pages are renovated, and if the right-thinking physicians who are members of the Ohio State Medical Association would raise a voice in protest their journal would clean up its advertising pages or go out of business.

It is reported that President Taft will appoint Dr. Carl L. Alsburg as successor to Dr. Wiley. Dr. Alsburg is chemical pathologist in the bureau of plant industry of the Department of Agriculture at Washington. He is a graduate of Columbia in 1896, and of the College of Physicians and Surgeons, New York, in 1900, and was formerly instructor of biological chemistry in the Harvard Medical School. He has also taken courses in chemistry and biological chemistry in some of the German universities. It is hoped that Dr. Alsburg's efficiency will not be crippled as was Dr. Wiley's by the opposition of other members of the bureau of chemistry, and that he will be divorced from the pernicious influence of the present incumbent of the office of secretary of the department of agriculture.

The time has arrived for making arrangements for the sale of Red Cross stamps, and already committees have been appointed in many of the larger as well as the smaller cities of the state. We learn that the counter movement on the part of some cities in the state in preparing and offering for sale special stamps which in no way bear any relation to the Red Cross stamps, is to be pushed this year. In Fort Wayne, for instance, a special stamp is offered, and the entire proceeds from the sale of the stamps are to be employed in antituberculosis work in the immediate vicinity of Fort Wayne. It is thought that this plan of keeping the funds at home is far better than the plan of the Red Cross Association, which requires that a considerable percentage of the proceeds be turned into the general fund and not used for local purposes.

The advertisers in The Journal expect returns for the amount expended in advertising or otherwise they would not spend their money in printer's ink. It is quite possible that most of our readers patronize The Journal's advertisers, but we desire to urge all of our readers to do this. We carry the advertising of some of the best firms in the country, and there is probably nothing in the way of physicians' supplies that cannot be furnished by one or more of The Journal's advertisers. The members of the Association owe it to themselves to patronize these firms, and for the reason that by so doing not only is reciprocity extended, but the patronage brings about an increase of our advertising income, and with the increase in the advertising income the members of the Association obtain a larger and better medical journal.

It is not too early to call attention to the near approach of the time for paying medical society dues. Some men invariably procrastinate in the payment of any and all obligations, but they are the losers by such practice. Medical society dues

are not a severe drain on any physician, and there is absolutely no reason why they should not be paid promptly when due. The time for paying medical society dues is during the month of December, and not later than January 1. Aside from the fact that the dues are payable in December, it should be remembered that some of the advantages of membership in the Association are lost if the dues are not paid before January 1. We refer particularly to the privilege of securing medical defense in malpractice suits. It should be remembered also that the postal laws do not permit The Journal to be sent to those whose subscriptions have not been paid, and the subscriptions are paid in connection with the dues.

That the manufacturers of many patent medicines "are worse than highway robbers and ought to be behind prison bars" is the declaration of Mrs. Martha Allen, Superintendent of the Department of Temperance of the National Women's Christian Temperance Union, who spoke at a recent meeting held at Portland, Ore. Newspapers that refuse to print fraudulent patent medicine advertisements were lauded by Mrs. Allen, who also administered a severe rebuke to editors of church papers by saying: "Protest against drug and drink advertisements have made editors of church papers miserable, and they probably will continue to be miserable until such advertising ceases." Mrs. Allen should turn her attention to the pious editors of lay papers as well as to the editors of church papers, though we admit that the latter are the more pronounced hypocrites in the matter of publishing objectionable advertising.

The butcher, the baker and the candle-stick maker, to say nothing of the hod-carrier and the stable boy, are invited by the Ross College of Chiropractic of Fort Wayne, to become practitioners of the new method whereby the cause of disease is eliminated by correcting subluxated vertebrae. Alluring circulars showing the profits to be made by becoming chiropractors are widely distributed on doorsteps and in yards, and the plea is made that now is the psychologic time to become a doctor of chiropractice and thereby secure a lucrative income, and the circulars say, it is an easy matter to find a chiropractor with an income of $250 a week. If we are not mistaken the meat in the cocoanut is the tuition fee of $220, which is payable in four equal instalments of $55 each. It is provided, however, that a husband and wife can take the course for a total of $275. This is a gentle reminder that the extra $55 is needed if a man can be induced to rope in his wife on the swindle.

Now that the sections of the Association have independent officers, we believe that it would be well to make the chairmen of the three sections the vice-presidents of the Association instead of electing separate vice-presidents who are nothing more than figureheads for whom there is little or no honor. It is expected that the chairmen and secretaries of the sections will look after the scientific and business management of their respective sections, and the president and secretary of the Association will look after the general affairs of the Association as a whole. The president will preside at the general scientific meetings and the meetings of the House of Delegates. There is no occasion for having vice-presidents other than the chairmen of the sections who can act as vice-presidents, unless it is deemed advisable to have one general vice-president to take the place of the president in case of death or absence from any of the sessions of the Association.

We desire to commend the work of the Council of the Indiana State Medical Association to the earnest consideration of the members of the Association. The Council is and should be the censor of the Association. It is made up of a representative from every district in the state, and those representatives are elected by popular vote. As a representative body it merits and should have the confidence of the Association in dealing with the ethical as well as the business affairs of the Association. It is the one representative and active body of the Association that has the time and the inclination to carefully consider everything that has to do with the progress of the Association. Since reorganization the Council has been composed uniformly of conscientious and representative men, and the work that has been done has at all times been done in the interest of efficiency and progress. We believe that the Council should be accorded a greater amount of confidence and respect than was given it when an attempt was made at the Indianapolis session to shear it of some of its power.

Westfield, Mass., is known from one end of the country to the other as a result of the epoch-making work done in connection with the enforcement of reasonable and just regulations concerning the distribution and sale of food and drugs. A bitter and relentless war was waged on the

promoters of the work, but in the end the battle was won by those who fought for the stamping out of adulteration and misbranding of articles offered for sale in the town of Westfield. The results of that work are seen in the advertising of several well-known firms who make capital of the approval of Westfield's department of public health. In a recent issue of *Collier's Weekly,* a full page of advertising is headed "Westfield's O. K.," and in connection therewith is the fac simile reproduction of the report of the chemical analysis made by the department of public health of Westfield. Certainly nothing could more surely emphasize the value of persistent and honest effort, and what Westfield has accomplished may be accomplished by any town or city if the right spirit and proper energy are put into the movement.

It is unfortunate that there was not a larger attendance at the conference of county medical society secretaries held just before the opening of the Indianapolis session. No secretary is so good that he cannot be better, and an interchange of ideas is necessary to attain the highest efficiency. There is now an association of state secretaries and editors, which holds meetings not only at the time of the annual sessions of the American Medical Association, but between times as well, and this association has been found to be of immense value in furthering and uniforming organization work in the various states. In this connection we desire to commend the action of a large number of state associations that have paid the expenses of their representatives in attending these conferences. They have recognized the value of the work done and the importance of having their representatives take part in it. It is an injustice to expect physicians who are doing the drudgery for the medical profession to spend money out of their own pockets in furthering the organization work. It is enough if they give their time to it ungrudgingly without recompense other than the satisfaction of having been of service to the profession.

"Because of his activity in the interest of public health, United States Senator R. L. Owen, of Oklahoma, has been a shining mark for the National League for Medical Freedom and all of the interests that this unholy organization unofficially represents. Senator Owen was opposed for his seat in the senate by ex-Governor Haskell, a prominent and popular citizen. It was thought by his enemies that with such a man, their many, if somewhat shady, interests would be able to defeat for re-election a man who had been doing so much injury to the cause of dopers, poisoners, charlatans, quacks and the pseudoreligious practitioners of medicine, by shedding the light of public investigation on their shady practices. Our very active friend, Dr. Crutcher, who seems to have plenty of money behind him, toured the state and boldly attacked Senator Owen for his stand in behalf of the proposed Department of Health, otherwise known as the Owen bill. How many subterranean influences were set in motion against Senator Owen we do not know, but it is safe to say that there were many. His nomination by a vote of about two to one over his opponent is a triumph for Senator Owen and the cause he advocates so earnestly. We congratulate the Senator."—*Texas State Journal of Medicine.*

We also wish to offer our sincere congratulations.

The report of the Committee on Venereal Diseases, at the Indianapolis session, raised a veritable tempest in a teapot when the Indianapolis newspapers made capital of the announcement that the medical profession of Indiana had gone on record as favoring the licensing of prostitution. Of course, this aroused the ire of the women's clubs, and started a torrent of discussion on the subject of licensing houses of ill fame and legalizing the medical inspection of prostitutes. At the final meeting of the House of Delegates, the Association placed itself on record as favoring the consideration of venereal diseases in the same light as we now consider contagious and communicable diseases which we quarantine. The Association hedged on the question of licensing houses of ill fame, and went squarely on record as upholding the sentiment, whether well founded or not, that prostitution, even though it is known to exist and cannot be stamped out, should not be legalized. We believe that this is an eminently proper stand to take, but if we are ever going to come anywhere near controlling venereal diseases we must recognize the necessity of treating the person suffering from a venereal disease as one as dangerous to the community as a person suffering from scarlet fever or small-pox, and we must keep that person under quarantine or control until he or she, as the case may be, is incapable of transmitting the venereal disease to others.

In our October number we referred to the advertising secured by those who attended Mr. Roosevelt following his attempted assassination,

and our criticism was based on disparaging comments seen in the public press. Since then a rather ludicrous incident has occurred in Indiana which shows how ready some physicians are to imitate the example of leaders in the profession. A Fort Wayne aviator eloped with his sweetheart in his aeroplane, and during the flight to a Michigan town he, in company with his fair companion, met with an accident which necessitated a few bandages and several days in bed to recuperate from bruises. Two physicians, one from Fort Wayne and the other from the Michigan town where the eloping party landed, presumably inspired by the action of the noted men who attended Roosevelt, gave out signed bulletins which were duly published in the daily papers giving all particulars concerning the injured aviators, including a record of temperature, pulse, respiration, etc. The frailty of the members of the medical profession who seek such cheap notoriety is commented on by the *Fort Wayne Daily News* as follows: "A local paper publishes in big black type on its first page a 'bulletin' signed by three doctors, affording the public the latest information concerning the sprained ankle of 'Birdboy' Smith. The *News* sometimes has forced upon it the unpleasant conclusion that the only advertising the doctors object to is that which costs something. Certainly a cheaper or more nauseating play for publicity was never made than that incorporated in the inane and ridiculous Birdboy 'bulletin.'"

In commenting on the work done at the conference of county medical societary secretaries, Dr. Combs, secretary of the Association, has the following to say: "The county medical society secretary of all men should be the one to attend the state association meetings. A good secretary cannot be made in one year. He has to be educated into the methods of organization and he must learn not only from his own experience, but from the experiences of others. There should be some extra inducements to make the secretary attend. Any county medical society would find it profitable to pay the expenses of its secretary in attending the state association meetings. On the other hand, the state association could do nothing better than to provide an annual dinner for the county medical society secretaries at the time of their meeting. This is done in Pennsylvania, and in some other states, and it would be in itself a small reward for the arduous labors of the secretaries in making the state medical association what it is." The American Medical Association has recognized the importance of the state association secretaries and editors in the work of building up the national association, and at each session of the American Medical Association a dinner is given for the state association secretaries and editors, with the American Medical Association as host, the dinner being followed by a program of papers and talks concerning organization work. The work of the secretaries and editors is sufficiently arduous, and so generally unappreciated that a complimentary dinner would not be unwarranted in partial recognition of the services rendered.

We have always maintained that the life insurance company that pays less than $5 for a medical examination gets about what it pays for. Many of the better class of medical men will not accept an appointment as medical examiner for any company paying less than $5, and while some good men have accepted the appointments and are rendering conscientious service, it is a recognized fact that most of the cheap examinations are really cheap and not worth what the companies pay for them. But the real point of the matter is that while insurance companies pay all their other servants handsomely, they are willing to pay the medical examiner, the most important servant of all, the most niggardly compensation, and it is regretted that there are any self-respecting medical men who are willing to render services on that basis. Fortunately not all life insurance companies are governed by this practice of cutting down the fees of medical examiners, and we take pleasure in giving a list of the companies doing business in Indiana that pay the flat $5 rate for examinations. The list is as follows: Aetna, Hartford, Conn.; American Central, Indianapolis; Anchor Life, Indianapolis; Berkshire, Pittsfield, Mass.; Connecticut Mutual, Hartford, Conn.; Equitable Life, New York; Federal Life, Chicago; Fidelity Mutual, Philadelphia; Germania, New York; Hartford Life, Hartford, Conn.; John Hancock Mutual, Boston.; Manhattan, New York; Massachusetts Mutual, Springfield, Mass.; Mutual Life, New York; Mutual Benefit, Newark, N. J.; National Life, Montpelier, Vt.; New England Mutual, Boston; Northwestern Mutual, Milwaukee, Wis.; Pacific Mutual, Los Angeles; Penn Mutual, Philadelphia; Phoenix Mutual, Hartford, Conn.; Provident Life and Trust, Philadelphia; Reliance Life, Pittsburgh, Pa.; State Mutual, Worcester, Mass.

We believe in the general principle involved in having boards of examination and registration for physicians, pharmacists, dentists, veterinarians and nurses, but we are decidedly opposed to the manner in which the majority of these boards are operated. In the first place we think that members of these boards should be appointed with due reference to qualifications, and that no man should receive an appointment merely as a result of his "political pull" or as a personal favor. The man should be fitted with qualifications for the position, and he should be one to command the respect of his professional brethren. In the second place, the examinations should be so conducted as to determine the fitness of the applicants for the practice of the profession for which license is applied. Inspection of many of the examination questions of these boards will show that an effort has been made to "catch" the applicant rather than determine his fitness for practice in the profession of his choice. One of the examiners on the Indiana Board of Examination and Registration, who asked a number of difficult and wholly impractical questions in an examination, gave as his excuse for the impractical examination that in former examinations he had asked about all the practical questions that he could ask and he did not want to repeat. He might as well have asked some questions in astronomy, so far as the value of his examination was concerned in determining the fitness of the candidate to practice medicine. The average examination given to nurses is also at fault in demanding a technical knowledge which has absolutely no place in the theory and practice of nursing.

An examination which really decides the fitness of an applicant for the practice of any profession must of necessity be of a practical character, and so far as medicine is concerned, we hope the time is not far distant when every applicant for a license to practice medicine will be compelled to pass a clinical examination in addition to the other requirements. This will come nearer to determining the actual ability of the applicant and is preferable to the present method, and particularly that feature of the present method which requires that applicants shall answer a lot of highly technical and impractical questions, which in no sense can be considered as determining the fitness of the applicant.

It is reported that the formula of Fellows' Hypophosphites is printed on the label of the sample bottles distributed to physicians. When a detail man for the Fellows' Hypophosphites Company was asked as to why the preparation he represented was not offered for the approval of the Council on Pharmacy and Chemistry of the A. M. A., he answered that the statement of the manufacturers was sufficient guarantee as to the nature and amount of the ingredients and mode of manufacture of the preparation in question. This is the same argument that has been put forth by other concerns whose preparations have been found by the United States Government, as well as the Council on Pharmacy and Chemistry of the A. M. A., to be misbranded, and in many instances entirely fraudulent.

The Council has no exactions that cannot be complied with by any honest firm. The Council is the only body which stands as a protector of the medical profession against misrepresentation and fraud on the part of unscrupulous manufacturing chemists. This is not to say that all or even a considerable portion of the manufacturing chemists are dishonest, but a sufficient number of them have been found to be dishonest to justify the creation of a clearing-house which shall set the seal of approval or disapproval on preparations that are offered to the medical profession.

If a doctor goes to a town where he is not known and asks for credit, he is promptly met with the request to furnish trustworthy recommendations. His own word alone is not accepted as evidence of his responsibility. If he goes to the bank to borrow money and promises to pay on or before ninety days, the bank officials may be morally certain that the obligation will be canceled according to promise, but before lending the money the bank insists that the doctor shall go through the requirement of signing a note and perhaps furnishing an endorser. This is even the case in a private bank which is not under the control of national banking laws. No one takes exception to this fair and business-like way of conducting business.

We have now established a Council on Pharmacy and Chemistry which furnishes us with thoroughly trustworthy information as to the truth or falsity of the claims put forth by the manufacturing pharmacists. There is absolutely no good and sufficient reason why we should not demand that preparations which we use shall have passed the Council, and there is no good and sufficient reason why the manufacturing pharmacists should offer the slightest objections to the requirement or fail to secure the endorsement. In fact, the endorsement of the Council should be sought rather than shunned.

"A man whom the honor seeks and who does not seek the honor" was the remark made in nominating Dr. Kimberlin for the office of president of the Indiana State Medical Association. It is probable that the remark arose as a result of the quite prevalent opinion that during the past few years there has been altogether too much political activity in efforts to secure the highest office in the gift of the Association. The Council, which, according to the Constitution, is the Board of Censors of the Association, and to which all questions of an ethical nature are referred, has pending before it a resolution inquiring into the matter of pernicious political activity in the election of officers of the Association, and The Journal has received several letters complaining about the objectionable methods employed by candidates or their friends in efforts to secure the presidency. It would seem, therefore, that it is high time that the selection of a president of the Association shall be with due regard not only to his fitness for the position and his long service in the best interests of the Association, but to his freedom from political activity in efforts to secure the position. It is perfectly proper and a laudable ambition to desire to be president of the Indiana State Medical Association, but in our opinion the office is an empty honor if it has been secured by solicitation and political activity, which are beneath the dignity of right thinking medical men.

In passing we may remark that we believe the highest office in the gift of the Association should fall to men who, as a result of their long and faithful service and their labors for the best interests of the Association, are deserving of the honor. These men and these men only should be the first ones to be considered in the selection of a president. But if it be known that any one of them has solicited votes for or sought any office within the gift of the Association, he should be considered eligible for the office, in accordance with the provisions of the by-laws of the Association. We should not lose sight of the fact that the main purposes of the Association are: "To extend medical knowledge and advance the medical sciences; to elevate the standard of medical education and secure the enactment and enforcement of just medical laws; to promote friendly intercourse among physicians; to guard and foster the material interests of its members, and to protect them against imposition; and to enlighten and direct public opinion in regard to the great problems of state medicine so that the profession shall become more capable and honorable within itself and more useful to the public in the prevention and cure of disease and in prolonging and adding comfort to life."

Unwarranted and undignified efforts on the part of any man to secure the presidency of the Association deserve failure, and while these comments should not be considered as a charge against any man who has held or is holding office in the Association, we submit that some of the candidates for the office of president have within the past few years resorted to practices which are not in keeping with the provisions of our by-laws concerning election, and this has resulted in general conduct not in keeping with the high ideals of the Association.

Fellows' Syrup of the Hypophosphites has always been a much advertised proprietary preparation. Just now the manufacturers of this preparation are seemingly robbing the grave in order to show the opinions held by some prominent medical men long since dead. Among the printed endorsements that have been circulated is one said to have been given by Dr. Chas. A. L. Reed, of Cincinnati, ex-President of the American Medical Association, who is very much alive and very much in sympathy with the propaganda for reform in the manufacture and sale of proprietary remedies. The endorsement is not only very flattering, but the representative of the Fellows Company, who was distributing the recommendations, insinuated that the recommendation was of recent date and that it bore evidence of the disapproval of the work of the Council on Pharmacy and Chemistry of the A. M. A. by Dr. Reed. Believing that Dr. Reed had been misrepresented, a letter was directed to him making inquiry as to the facts. The correspondence may be of interest to our readers, and is as follows:

Fort Wayne, Ind., Nov. 5, 1912.

Chas. A. L. Reed, M.D., Cincinnati, Ohio.

Dear Dr. Reed.—In exploiting Fellows' Hypophosphites, a detail man has presented me with a very flattering recommendation of Fellows' Hypophosphites given by you which is duly published in circulars that are distributed to the medical profession, and the insinuation is made that your recommendation of Fellows' Hypophosphites is an evidence of your failure to entirely support or fully endorse the work of the Council on Pharmacy and Chemistry of the A. M. A.

As a believer in the righteousness of the work of the Council and the propriety on the part of every conscientious member of the medical profession to give the Council his unqualified support, I wish to inquire about the genuineness of your endorsement of Fellows' Hypophosphites as published in the literature being distributed, and to be informed as to the date when you gave such a flattering endorsement. I am under the

impression that the endorsement was given many years ago, and long before we had any Council on Pharmacy and Chemistry to point out the good and bad among the various proprietary preparations that are offered to the medical profession.

If it is your wish I shall treat your letter as a confidential communication.

With cordial regards,

Sincerely yours,

Albert E. Bulson, Jr.

Cincinnati, Ohio, Nov. 6, 1912.

Dr. Albert E. Bulson, Jr., Editor The Journal of the Indiana State Medical Association, *Fort Wayne, Ind.*

My Dear Dr. Bulson.—I am surprised and annoyed to know that any recommendation from me is being used by the Fellows' Hypophosphites people or by anybody else for the purpose of promoting any proprietary preparation. I am especially annoyed if it is being used in any way to discredit even inferentially the work of the Council on Pharmacy and Chemistry of the A. M. A., with the objects and purposes of which I am in entire sympathy.

I have no recollection of ever having given a statement of approval to the Fellows' Hypophosphites people. It is possible that i may have done so many years ago, before the very wholesome ethical quickening of the medical profession took place with reference to the whole list of proprietary preparations. There was a time, years ago, when it had not dawned upon me that the policy of this whole class of preparations was inimical to the public welfare, and that it was so thoroughly antagonistic, as I now know it to be, to the scientific attitude of the medical profession. That I, in common with thousands of other members of the medical profession, have come to realize the full importance of this question and the correct attitude that should be taken with respect to it is due very largely to the labors of the Council on Pharmacy and Chemistry of the A. M. A.

These facts being true, I am writing the Fellows' Hypophosphites people, requesting them to discontinue the use of any letter which I may have given them in the times past. I enclose you herewith a carbon copy of my letter to them. You are at liberty to make any use of this communication that in your discretion will best protect the interests of the public and promote the wholesome policy of the medical profession.

Again thanking you for calling my attention to this subject, I am,

Sincerely yours,

Charles A. L. Reed.

Cincinnati, Ohio, November, 1912.

Messrs. Fellows & Co., Montreal, Canada.

Gentlemen.—I am enclosing you herewith a copy of a letter recently received from Dr. Albert E. Bulson, Jr., Editor of The Journal of the Indiana State Medical Association, Fort Wayne, and my reply to the same. In accordance with my communication to Dr. Bulson, I trust you will discontinue the use of any endorsement that I may have given to Fellows' Hypophosphites. My reasons for making this request are made plain in my letter to Dr. Bulson.

Very respectfully,

Charles A. L. Reed.

DEATHS

Mrs. Lettie A. Barnett, aged 48, wife of Dr. W. W. Barnett, of Fort Wayne, died October 18.

Dr. Chas. S. Spitler, aged 44, died at his home in Mooreland, October 16, after a long illness.

Dr. Lewis N. Davis, of Farmland, Randolph County, died October 3, aged 63 years. Dr. Davis was born in 1849.

Dr. Leonidas H. McCoy, a graduate of the Medical College of Ohio, Cincinnati, 1881, died at his home in Richmond City, October 7, aged 61.

Dr. John E. Link, aged 73, died at his home in Terre Haute, October 13. Dr. Link served as a surgeon in the Civil War. For the last few years he had lived a retired life.

Dr. Hiram D. Hattery, a graduate of the Miami Medical College, Cincinnati, 1874, for many years a member of the City Council of Logansport, died at his home October 15, aged 65.

Dr. William Commons, aged 76, one of the oldest residents of Union City, died at his home October 28. Dr. Commons was an acting assistant surgeon in the volunteer navy during the Civil War. He was a helpless invalid for many years past.

Dr. Caleb S. Evans, of Union City, one of the oldest and best known specialists in the county, died at his home October 16, aged 72. Dr. Evans was recently elected to a life membership in the American Academy of Ophthalmology and Oto-Laryngology.

Dr. H. B. Leavitt, superintendent of the State Tuberculosis Hospital at Rockville, died at the Methodist Episcopal Hospital, Indianapolis, October 29, after a short illness. Dr. Leavitt became superintendent of the State Tuberculosis Hospital in January, 1911. Dr. Leavitt was a native of New York. He attended the Elmira (N. Y.) Academy, the College of Surgeons, of St. Louis, and the New York Post-Graduate Medical School.

NEWS, NOTES AND COMMENTS

Dr. John A. Scudder and Miss Maysel Bernice Lee, both of Edwardsport, were united in marriage October 1.

Both Madison and Grant counties have recently organized associations for the study and prevention of tuberculosis.

Dr. Charles Loomis, Laporte, who has been seriously ill at the Marion Hospital with arsenic poisoning, has returned home convalescent.

The regular meeting of the Whitley County Medical Society was held in the Marquette Club Rooms at Columbia City, November 12.

The antituberculosis fund canvas in Evansville has resulted in subscriptions of $12,115.36, or more than $2,000 in excess of the amount expected.

The dedication of the new Lane Medical Library of the Leland Stanford Junior University, San Francisco, took place on Sunday, November 3.

At the recent meeting of the State Conference of Charities and Correction, held in Logansport, the establishment of a state penal farm for short-term prisoners was advocated.

Dr. John F. Barnhill, of Indianapolis, has been chosen Chairman for Indiana of the Collective Investigation on Ozena of the Third International Laryngo-Rhinological Congress.

Dr. J. O. Stillson and family, of Indianapolis, have recently returned from a ten months' sojourn in Europe. Dr. Stillson attended clinics in Paris, London and Berlin.

The commencement exercises of the Senior Class of the Lutheran Hospital Training School for Nurses were held November 6, at the Concordia College, Fort Wayne.

Dr. John J. Kyle, formerly of Indianapolis, announces his change of location to Suite 702 Title Insurance Building, Los Angeles. Practice limited to Otology, Laryngology and Rhinology.

The Twelfth District Medical Society met in Fort Wayne, November 13. Dr. Robert Bruce Preble, Professor of Medicine, Northwestern University Medical School, Chicago, was the guest of honor.

The eighty-seventh semi-annual meeting of the Union District Medical Association was held at Rushville, October 24. Drs. F. F. DuBois, of Liberty; A. C. Kimberlin, of Indianapolis, and R. D. Morrow, of Richmond, presented papers.

The police and health authorities of Richmond have more than fifty dogs suspected of rabies under quarantine. Dr. T. Henry Davis, health officer, reports that there have been fifteen dogs' heads examined which showed Negri bodies.

At a recent meeting of the Marion County Medical Society, resolutions were adopted commending the action of the Indianapolis *Sun* in eliminating from its advertising columns the announcements of medical practitioners engaged in objectionable practice.

The Board of Trustees of Indiana University has awarded the contract for the erection of the Robert W. Long Hospital to the Bedford Stone and Construction Company. The architect's estimate for the cost of the building was approximately $4,000 in excess of the contract price.

The State Board of Finance at a recent meeting authorized the expenditure of $75,000, appropriated by the 1911 Legislature, for the purchase of farm land to be used in the establishment of an insane colony in connection with the Eastern Hospital for the Insane at Easthaven.

A new hospital building for the feeble-minded is to be erected at Fort Wayne at an expense of $75,000. This makes the tenth building to be erected for this institution and completes the original plan which has involved an investment by the state of nearly one million dollars.

The Indiana medical profession has been honored by the selection of Dr. A. E. Sterne of Indianapolis as president of the Mississippi Valley Medical Association. Dr. Sterne has been an active and influential member of the Association for many years, and is in every way deserving of the compliment that has been bestowed on him.

Dr. Geo. D. Kahlo, until recently medical director of the French Lick Springs Hotel, has recently been elected to a similar position at White Sulphur Springs, a famous health resort

of West Virginia, now controlled by the Chesapeake & Ohio Railroad. Dr. Kahlo will spend the winter abroad, taking charge of the work at White Sulphur Springs some time in the spring.

At the recent meeting of the Mississippi Valley Medical Association, held at Chicago, October 22 to 24, the following officers were elected: president, A. E. Sterne, Indianapolis; first vice-president, D'Orsay Hecht, Chicago. second vice-president, Hugh Cabot, Boston; secretary, H. E. Tuley, Louisville; treasurer, S. C. Stanton, Chicago. The next meeting will be held in New Orleans the last week in October, 1913.

The Indiana Hospital for Insane Criminals, Michigan City, was opened for occupancy October 19. The building is modern throughout and its equipment is up to date. Persons who become insane while serving sentences in the Indiana State Prison and Reformatory will be treated in this institution and also such persons as are committed to it by authority of the court, to remain until discharged on recovery. Dr. Paul E. Bowers is physician in charge.

At a recent meeting of the staff of the City Hospital, Indianapolis, new rules governing the admission of patients for free treatment were discussed. Dr. Keene said that the institution had been much abused in the past, and that one day a few months ago he found at least 15 per cent. of the patients in the hospital were not entitled to free treatment, their registration at the hospital showing that they lived outside the city. Dr. Keene explained that the proposed rules were not intended to make it difficult for anyone entitled to service at the hospital to be admitted.

Drs. Frank and Alfred Wade, of Howe, Ind., entertained the members of the LaGrange County Medical Association and many of the physicians from adjoining counties at Blake Hall, Howe, on October 31, in honor of Dr. Clarence John Blake, le compte Professor of Otology of the Harvard Medical School. Rev. John H. McKenzie, President of the Howe Military School, also entertained in honor of Dr. Blake by inviting the visitors to a 6 o'clock dinner. Dr. Blake held an otologic clinic at the forenoon meeting, and at the afternoon meeting delivered an address in which he spoke in a comprehensive manner concerning the new post-graduate school instituted by Harvard University.

The American Surgical Association has appointed a committee consisting of Drs. William L. Estes, South Bethlehem, Pa.; Thomas W. Huntingdon, San Francisco, Calif.; John B. Walker, New York City; Edward Martin, Philadelphia, and John B. Roberts, Chairman, 313 S. 17th Street, Philadelphia, to report on the Operative and Non-Operative Treatment of Closed and Open Fractures of the Long Bones, and the value of radiography in the study of these injuries. Surgeons, who have published papers relating to this subject within the last ten years, will confer a favor by sending two reprints to the Chairman of the Committee. If no reprints are available, the titles and places of their publication are desired.

CORRESPONDENCE

COUNTY MEDICAL HISTORY—GET READY FOR 1916

Muncie, Nov. 1, 1912.

To the Editor:—May I make an appeal to every county society in the state of Indiana? Why not begin your program for 1913 by appointing one of your number historian for your county society? In 1916 our state will celebrate its one hundredth anniversary. Already the Indiana State Centennial Committee has been named, and at our recent meeting at Indianapolis, the State Medical Association, by resolution, voted to cooperate with the above-named committee.

Begin this work at once. People who can give you information now, will be dead in a few years hence. Begin at once and collect medical facts for the formation of a permanent county history. Three years ago I wrote a medical history of Delaware County. I could have performed the task much more easily and better twenty-five years ago. The work becomes more difficult with each advancing year because the witnesses are fewer and the memory is more treacherous.

Several physicians of Indiana furnished me a valuable report of their several counties for my Medical History of Indiana. Dr. Y. Z. Powell of Logansport has nearly ready for publication a valuable history of the medical men of Cass County. Dr. James B. Maple of Shelburn, secretary of Sullivan County Medical Society, writes me that he is now preparing a medical history of that county.

If the medical history of your county is unwritten in 1916, you will be to blame. You owe it to the early physicians of your county to preserve their names, works and achievements. Do it. Do it now!

G. W. H. Kemper,
Historian, Indiana State Medical Association.

SOCIETY PROCEEDINGS

REGISTRATION IN THE EYE, EAR, NOSE AND THROAT SECTION OF THE INDIANA STATE MEDICAL ASSOCIATION, INDIANAPOLIS SESSION, OCTOBER, 1912

George F. Keiper, Chairman.....LaFayette
Albert E. Bulson, Secretary.....Fort Wayne
C. N. Howard .....Warsaw
A. W. Lloyd .....Hammond
R. W. Cochran .....Madison
F. E. Radcliffe .....Bourbon
James McCall .....Terre Haute
Will J. Martin .....Kokomo
E. L. Perkins .....Bedford
James W. Hadley .....Frankfort
T. C. Wood .....Indianapolis
Chas. E. Gillespie .....Seymour
F. C. Heath .....Indianapolis
J. N. Iddings .....Lowell
S. A. Shoemaker .....Bluffton
W. H. Terrell .....Pittsboro
C. F. Hope .....Coatesville
Jas. H. Black.....Lebanon
F. V. Overman .....Indianapolis
J. R. Gillum .....Terre Haute
W. J. Leach .....New Albany
C. H. McCaskey .....Indianapolis
L. D. Brose .....Evansville
Fred McK. Ruby.....Union City
Jos. D. Heitger .....Bedford
Stewart Slocum .....Fortville
George W. Spohn .....Elkhart
David W. Stevenson .....Richmond
Ernest deWolf Wales.....Indianapolis
John R. Newcomb.....Indianapolis
Horace G. Read.....Tipton
J. T. Thompson.....Indianapolis
Wm. F. Molt .....Indianapolis
K. K. Wheelock .....Fort Wayne
J. P. Worrell.....Terre Haute
Wm. S. Tomlin .....Indianapolis
L. C. Cline.....Indianapolis
J. McLean Moulder.....Kokomo

KOSCIUSKO COUNTY

The regular meeting of the Kosciusko County Medical Society was held October 29. Current literature was reviewed on the following subjects: Therapeutics, Dr. P. G. Fermier; Internal Secretions, Dr. G. W. Anglin; Ear, Nose and Throat, Dr. F. J. Young; Syphilis, Dr. A. C. McDonald, and Eye, Dr. C. N. Howard.

Dr. T. J. Shackelford was the "leader" in discussing the subject of the lungs. Dr. Howard gave the anatomy very briefly; Dr. Anglin the physiology, and Dr. Young spoke on the treatment of pneumonia. Dr. Shackelford brought out some facts on the subject of empyema.

Adjourned. C. Norman Howard, Secretary.

MONTGOMERY COUNTY

The Montgomery County Medical Society met in regular session at 6 p. m. October 22 at the home of Dr. H. W. Sigmond, in Crawfordsville. Everyone present joins the secretary in extending a vote of thanks to Dr. and Mrs. Sigmond for their hospitality and the bountiful dinner served at 6 p. m. After dinner the members adjourned to the scientific session.

Dr. A. C. Kimberlin, president of the State Association, held a clinic. Dr. Kimberlin presented a patient, colored man, aged 62, cook by trade, always of good habits, excepting being a constant smoker of a pipe. This man came to the clinic in Indianapolis complaining of cough but no marked dyspnea. Upon a former occasion was treated and regained his health. Arteries in good condition for one his age. A systolic murmur loud in character is present at aortic area and also a softer, more prolonged diastolic murmur present over the third left rib. Dr. Kimberlin emphasized two routes by which disease attacks the aortic valves, first from arterial side as from changes taking place with age, whether patient ages prematurely or not, this form being usually of shorter duration and more apt to end suddenly; secondly, the inflammatory cause, coming from an endocarditis which may follow any one of a number of the acute inflammatory diseases. While this patient has some pulmonary edema causing some dyspnea and considerable cough, his condition is not considered dangerous as to life.

Dr. Kimberlin spoke of the great frequency of cardiac murmurs and how one can bring on a murmur and still it be of little significance. He spoke of the need of diagnosing the case exactly before employing digitalis in treatment. Rest the most important factor in treatment of such conditions. The pulse tracing in this case showed it to be of medium to small volume with good elasticity of peripheral vessels and a blood-pressure of 150 mm. A vote of thanks was extended Dr. Kimberlin.

A communication was read from the Kosciusko County Medical Society recommending Dr. N. Austin Cary to membership in the society.

A committee of three was appointed to arrange for the next meeting to be held November 19. Much interest is being shown in these meetings and only those who attend can know what is missed by not attending. Moral: Come to the November meeting and see for yourself.

Adjourned. J. L. Beatty, Secretary.

FORT WAYNE MEDICAL SOCIETY

Meeting of September 17

Clinical meeting at Lutheran Hospital with 20 members present. Minutes of preceding meeting read and approved.

Dr. Duemling presented case for diagnosis, with following history: Patient, man aged 59 years. Ten days ago had a mucous colitis. Family doctor dilated rectum with sounds. Since that time has had intense pain in perineum which takes ½ grain of morphin to relieve, and then only for a short time. Rectal examination negative as is also prostate and bladder. Blood shows hemoglobin normal, polynuclears 80, large lymphocytes 10, small lymphocytes 20, eosinophils normal. Urine negative. Stools negative. Temperature normal, pulse 80. Patient suffers greatly from rectal tenesmus but not accompanied by diarrhea. History shows an initial specific lesion thirty years ago.

Discussion. Dr. McOscar: The history of specific infection I should think would explain the condition present in this case—that is tabetic crisis.

Dr. Beall: This might be a stricture of the rectum higher up than the reach of the finger. Stricture of the bowel in specific disease is not uncommon.

Dr. Weaver: One point which no one has mentioned. This case might be a case of chronic diverticulitis of lower part of the bowel. Unless the diverticulitis were ulcerated there would be no blood in the stool. Two things to be done—one is a Wassermann examination; the other is proctoscopic examination. This lesion must be low enough down to be seen by the proctoscope.

Dr. Duemling also presented a case of pyloric stenosis with x-ray picture after 2 ounces of bismuth gruel. Patient began with mucous colitis two weeks ago; had pain in epigastrium. These pains had no relation to food. Vomiting accompanied pain. Required morphin for relief. Pains have continued. X-ray would indicate either an hour-glass contraction of the stomach or pyloric stenosis, or pylorospasm.

Dr. Morgan presented a case: Female, aged 30, presenting jaundice, acolic stools, bile in urine and pain and tenderness over gall-bladder. Coagulation time of blood delayed. Blood negative; chill and fever; temperature 101; pulse normal. Gives history of chronic dyspepsia. Diagnosis, cholecystitis. Got well without operation.

Discussion: Dr. McOscar: I do not believe that this patient would bleed if operated on, any more than a robust person, unless hemaphilia be present. In obstruction of gall-ducts and long standing jaundice we look for hemorrhage. This patient still has some distress after eating, and I believe that Dr. Morgan will have this case opened and gall-bladder drained at some future time.

Dr. Duemling: I want to state that there are distinct classes of cholecystitis that are not amenable to medical treatment.

Dr. Beall: I have not heard a thing in this history which could not be accounted for by simple catarrhal jaundice. I think that we would be justified in waiting for repeated attacks that would demonstrate the presence of gall-stones with cholecystitis. One thing we should remember in catarrhal jaundice that hexamethylenamin is of great service.

Dr. Drayer: Many cases of this kind have been hurried to the hospital, gall-bladder opened and no gall-stones found. Drainage of the gall-bladder in these cases cures them of course, but I would not be in a hurry to open them up unless gall-stone colic was present and I was at least certain of their existence. Gastric lavage is also of great service in these cases.

Dr. Porter, Jr.: I did not think that this patient needed an operation when I saw her, but I believe that she will have a return of this condition.

Dr. Weaver: I should think that simple catarrhal jaundice would not account for her chills and fever, and had a blood count been made during this period infection would have been demonstrated.

Dr. Morgan: The absence of pain and slight tenderness on pressure made me think that this was a simple cholangeitis. The point of malaria did not escape me and I gave this patient large doses of quinin without result.

Secretary made report on the condition of our library, also a partial report of the committee on meeting place, to the effect that the school board had asked for further time to consider the securing of the hall at the library for our meetings.

Adjourned. G. Van Sweringen, Secretary.

Meeting of September 24

Society met in regular session in assembly room with 17 members present. Minutes of preceding meeting read and approved.

Dr. McOscar made inquiry as to whether any of the members of the society had ever heard a child cry *in utero*. Last summer saw a primipara in labor; breech presentation, with profuse liquoramnia. No dilatation to speak of. The baby was heard to cry distinctly before his birth. It is perfectly rational to believe that air can pass into the uterus sufficient to allow a child to cry. It cried one and a half hours before it was born.

Dr. Duemling: One absolute condition under which this child could cry is the presence of air. I cannot understand how under these conditions a child could get sufficient air into his lungs to have the power to phonate.

Dr. G. Van Sweringen reported a case of acute influenza of severe type.

Dr. McCaskey read a paper on "Pernicious Anemia, An Embryonic Factor in Its Production."

Discussion. Dr. Porter: I was impressed during the reading of the paper by the not infrequent occurrence of carcinoma in pernicious anemia. I mean by that the blood picture of pernicious anemia in carcinoma. There is a time when the best of pathologists cannot tell the difference between adenoma and carcinoma. A cancer is a nest of badly acting epithelial cells. I think it is Adami who refers to leukocythemia as a sarcoma of the blood.

Dr. McCaskey closed the discussion.

Communication from the National Committee on the Congress of Hygiene read. Motion carried that president appoint two members of this society as delegates. President appointed Drs. M. F. Porter and G. W. McCaskey.

Adjourned. G. Van Sweringen, Secretary.

INDIANAPOLIS MEDICAL SOCIETY

Meeting Oct. 1, 1912

President and vice-president both being absent Dr. A. B. Graham presided.

Attendance 56. Reading of minutes dispensed with.

Application of Frank W. Cregor was read for first time and applications of P. W. McCarty and C. R. Marshall were read second time.

The following resolution was passed after some discussion:

Whereas, The Indianapolis *Sun* by editorial announcement will eliminate from its advertising columns the announcements of medical practitioners engaged in an objectionable character of practice, be it

Resolved, By the Indianapolis Medical Society, in meeting assembled, that such action is to be commended and that a copy of this resolution be spread on the minutes and one be sent to the Indianapolis *Sun*.

Dr. F. C. Warfel presented an Anomalous Kidney found while making a dissection of a female who had died of pneumonia. Left kidney had a double afferent and efferent circulation with an extra artery entering crest, a well-marked suprarenal body and a single ureter which was patent throughout. The right kidney very large. Surface markings and section showed a line of demarcation below middle. Upper segment had three distinct arteries—one at crest and two at hilum. A vein led from this segment and a ureter one and one-half inches in length joined ureter from lower segment. Lower segment had normal circulation and a ureter of normal size to which ureter from supernumerary kidney was attached. No trace of a right suprarenal body was found.

Dr. W. H. Foreman reported a case of Gastroptosis simulating Gastric Ulcer. Patient, a female, aged 27. Indigestion since age of 16. Pain more or less constant but worse after eating. Some relief by regulation of diet. At time of examination patient complained of pain in epigastrium which was referred to left scapular

region, becoming more severe after eating but never entirely disappearing. Pain relieved by lying on left side of back. No vomiting; bowels constipated and acidity high. Examination showed tenderness in epigastrium which was not localized. Right kidney prolapsed. Patient put to bed for two weeks and kept on a milk diet. There was no pain when patient was in bed but it reappeared when patient got up again. Three weeks in bed again relieved trouble which again recurred. Medication had been alkalies and castor oil. Distention of stomach showed displacement. Diet was regulated, an abdominal support applied, constipation relieved, abdomen massaged to strengthen muscles and heavy work avoided. Patient was immediately relieved and has gained in weight.

Dr. Bernays Kennedy reported a case of Pancreatic Cyst.

Dr. W. T. S. Dodds reported a case of General Septicemia following Unresolved Pneumonia. Patient, a male, aged 21. Complaint of cough, general weakness, loss in weight and profuse night sweats. Five months previously had an attack of lobar pneumonia. Did not make a good recovery from pneumonia and gradually grew worse until he appeared for examination. Examination revealed a consolidation of right base with an area of involvement in middle lobe. Temperature 99.6, pulse 100. There was a harsh dry and violent cough. Numerous moist râles and bronchial breathing. Adenitis extending from great toe up leg and thigh and inguinal region on left side. Glands were very red and tender with no evidence of breaking down. Sputum examination for tubercle bacilli was negative but showed an almost pure culture of strepto-pneumo-cocci. Blood culture showed a pure culture of same organism. A vaccine was made and administered resulting in complete cure.

Dr. Henry: Dr. Dodds' report should teach that there is a wide use for vaccines.

Dr. Thurston: How was the interval between doses regulated in Dr. Dodds' case? By reaction?

Dr. Dodds: There was no reaction after first dose.

Dr. Kennedy: Beginning of the trouble in reported case was probably in tail of pancreas. There was no evidence of previous disease of biliary ducts.

Dr. Joseph Rilus Eastman reported a Method of Continuous Dilatation of Extensive Urethral Stricture. Pressure absorption of hard and soft urethral inflammatory infiltrations has been observed. A large soft rubber catheter has been used in urethra after perineal section which lessened necessity of after-sounding and caused absorption of anterior strictures. The objection to such a method is angulation produced at membraneous urethra and at peno-scrotal juncture. The pressure at these points often causes an abscess. To avoid this feature, two large elastic catheters have been used—one as a perineal drain and dilator of posterior urethra and the other for dilatation of anterior urethra. The short catheter is passed into anterior urethra after dilatation and secured to draining catheter by chromic gut at opening in membranous urethra. Catheter may be left in position two or three weeks or longer. Cases were reported and illustrative diagrams exhibited.

Discussion—Dr. McDonald expressed an interest in Dr. Kennedy's case. The course of the temperature would be instructive. A preceding infection of biliary tract might have been a cause.

Dr. McAlexander mentioned a case of pancreatic cyst reported three years ago. Case presented a history of injury and gall-stones. There is a relation between pancreatic disease and gall-stones.

Dr. Hamer: Strictures are no longer treated with a urethrotome. They may be treated by external urethrotomy and drainage. The angulation produced in a catheter can be avoided by fastening the penis up over abdomen. A case was reported in which continuous dilatation with a catheter was used.

Adjourned. Homer R. McKinstray, Secretary.

Meeting Oct. 8, 1912

Meeting called to order by vice-president. Attendance 57. Minutes of last meeting read and approved.

Applications of Severance Burrage and H. A. Van-Osdol were read for first time.

Secretary announced that Dr. Cabot of Boston and Dr. Witherspoon, president of the American Medical Association would probably visit Dr. Wishard in the near future. Drs. Barnhill, Pantzer, McCown and McKinstray were appointed a committee to confer with Dr. Wishard in arranging for their entertainment.

Dr. Barnhill read a paper on "Making of a Specialist." Physicians may become specialists in any branch of medicine, because of the total lack of regulation of any kind, either legal or moral, of the acts of the physician after he is once graduated and legalized to practice general medicine. As a result, a large per cent. of those who practice special medicine have had almost no training that would adequately fit them to do special work. The public, as indicated in the lay press is coming to realize that the term specialist is not synonymous with adequate medical training. There are two faults in the present plan of training a specialist. First, a lack of proper preparatory training on the part of the would-be specialist and, second, the lack of a compulsory course laid down by any post-graduate school. The post-graduate course gives the student the opportunity to do little or much real preparation as best suits him. European post-graduate study consists, too often, of only a summer vacation abroad with only a look in here and there at a clinic. Shambaugh of Chicago University is quoted as saying that all post-graduate study should be conducted by universities. Dr. John B. Murphy advocates the legal control of the practice of specialties. University control would enforce an adequate standard of preparation. It is to be hoped that the moral influence of the Council on Education of the A. M. A., the American Medical College Association, and the Carnegie Foundation will interest themselves in the betterment of post-graduate study as they have already done to such great advantage in undergraduate study.

The second paper was read by Dr. Hadley. Title: "Tuberculous Rheumatism." The word Rheumatism has no place in medical nomenclature and in its place should be substituted terms indicative of the etiology such as arthritis or myositis arthralgia or myalgia. Joint inflammations of whatever type should be regarded as metastatic infections, the bacteria or toxins finding their way to the joints by way of the blood stream from some distant focus of infection. Many different species of bacteria have been proven the etiological factor in the production of joint inflammation, and it is likely the tubercle bacillus is likewise a frequent factor. Proof that such is the case, so far largely depends on analogous pathological facts and clinical evidence. Tuberculous inflammation of all other serous membranes is a matter of common acceptance. There is no good reason for excluding serous membranes of

joints from this type of infection. Clinical evidence is of importance and need only to be looked for to be found. Joint inflammations may be treated more rationally when viewed in the light of a surgical infection. Anodyne drugs such as the salicylates, physiological rest, and drainage when indicated cover the field of local treatment.

Discussion: Dr. Howat, president of the State Medical Association, was present. The Scientific Committee of the Association was congratulated. There are many pseudo-specialists from a desire to make money without great effort. Short hours and good fees appeal to the rank and file of physicians. The conscience of the medical profession is not sufficiently aroused. The privilege of service carries with it a duty. In regard to Dr Hadley's paper, the term rheumatism is rapidly becoming obsolete. A large number of cases of arthritis are tuberculous. Tuberculous patients often give a history of "rheumatism."

Dr. Potter: The term rheumatism should be discarded. Doubts if Dr. Hadley's idea of tuberculous joint infection will ever be proven. It is a question if there is a form of tuberculous arthritis different from the recognized type of tuberculous joint disease. Tuberculous disease of serous sacs leaves definite marks and joints should not be an exception. Inoculation tests have been extensive and the tuberculous origin of cases has not been demonstrated. Tuberculin tests should be positive in making a diagnosis. Cases of arthritis occurring in the course of pulmonary tuberculosis are probably from a toxemia or mixed infection. The whole group of acute and chronic infections are liable to be complicated by arthritis.

Dr. Reed: Term rheumatism is meaningless except for acute type. This form is an entity. Successive joints are involved and the joint left normal. If the old idea that joint tuberculosis begins in the bone is true, Dr. Hadley's idea is incorrect. A recent monograph shows that synovial inflammation frequently occurs in the course of rheumatism. An effort should be made to make the signs and symptoms fit the pathology.

General Discussion—Dr. Pantzer: The sense of liberty of the American people leads them to aspire to anything. Medical schools are to blame for present state of specialism. A special examination should be required of all going into special work. There are toxemic and bacteriemic joint infections. Sodium salicylate in rheumatism acts by elimination.

Dr. Kimberlin: Sorry Dr. Barnhill avoided specific points. The diagnosis of rheumatism is cowardly and unfinished. Outside of the acute inflammatory type there is no definite pathology. The consideration of multiple serositis is new pathology. Reported case of chronic arthritis in course of pulmonary tuberculosis. Second case diagnosed rheumatism proved to be tuberculosis.

Dr. Dodds: Dr. James Clark of Denmark in 1835 described articular rheumatism as an objective sign of tuberculosis.

Dr. Hadley, in closing, the milder types of tuberculosis cause cases of arthritis. The joint lesion of tuberculosis must differ from ordinary lesion. Dr. Potter's contention that secondary infection causes the joint lesion in constitutional tuberculosis would require demonstration of the secondary infection. Movements of joints with force prevents usual changes in tuberculous disease of serous sacs.

Adjourned. Homer R. McKinstray, Secretary.

THE TRUTH ABOUT MEDICINES

This department presents, in concise form, facts about the composition, quality and value of medicines. Under "Reliable Medicines" appear brief descriptions of the articles found eligible by the A. M. A. Council on Pharmacy and Chemistry for inclusion with "New and Nonofficial Remedies." Under "Reform in Medicines" appear matters, tending toward honesty in medicines and rational therapeutics, particularly the reports of the A. M. A. Council on Pharmacy and Chemistry and of the Chemical Laboratory.

The text on which these abstracts are based may be obtained from the American Medical Association, 535 Dearborn Avenue, Chicago.

RELIABLE MEDICINES

Articles found eligible by the Council on Pharmacy and Chemistry for inclusion with "New and Nonofficial Remedies."

Plague Bacterin, a *Bacillus pestis* vaccine, marketed in single-dose vaccination. One c.c. ampules containing 5 billion killed *B. pestis*. Also marketed in two-dose vaccination, for one immunization. One c.c. ampules containing respectively 1 billion and 2 billion killed *B. pestis*. The second dose is to be injected from seven to ten days later or when the reaction to the first injection has subsided. H. K. Mulford Co., Philadelphia (*Jour. A. M. A.*, Oct. 12, 1912, p. 1377).

Staphylo-Strepto-Bacterin Mixed is a mixed vaccine marketed in a package of four syringes containing increasing doses of killed *Staphylococcus pyogenes aureus*, killed *Staphylococcus pyogenes albus* and killed streptococcus. H. K. Mulford Co., Philadelphia (*Jour. A. M. A.*, Oct. 12, 1912, p. 1377).

Diphtheria Antitoxin, U. S. P., marketed in syringes containing 1,000, 2,000, 3,000, 4,000 and 5,000 units; also in bulbs. Diphtheria antitoxin globulin marketed in syringes containing 1,000 units. Cutter Laboratory, Berkeley, Cal. (*Jour. A. M. A.*, Oct. 12, 1912, p. 1377).

Detre Differential Test consists of tubes containing respectively Tuberculin O. T.; Tuberculin B. F. human, and Tuberculin B. F. bovine. Cutter Laboratory, Berkeley, Cal. (*Jour. A. M. A.*, Oct. 12, 1912, p. 1377).

Tuberculin O. T. (Dilution) Von Pirquet's Reaction, marketed in packages containing ten capillary tubes and one ejecting bulb. Cutter Laboratory, Berkeley, Cal. (*Jour. A. M. A.*, Oct. 12, 1912, p. 1377).

Glycerinated Vaccine Virus is a vaccine virus marketed in packages containing respectively five and ten capillary tubes. The Slee Laboratories, Swiftwater, Pa. (Abbott Alkaloidal Co., Chicago) (*Jour. A. M. A.*, Oct. 12, 1912, p. 1377).

Bismuth Betanaphtholate, Merck, is a non-proprietary article and complies with the tests laid down in New and Nonofficial Remedies for Bismuth Betanaphtholate. Merck & Co, New York (*Jour. A. M. A.*, Oct. 12, 1912, p. 1377).

REFORM IN MEDICINES

The Unreliability of Unimportant Drugs.—Using the findings of the A. M. A. Chemical Laboratory W. A. Puckner discusses the unreliability of unofficial and little used medicines. He points out that, while none would sell these articles under grossly false claims or would adulterate them, because the profits to be derived from their sale is more than offset by the danger of detection, this small demand also operates in another way. The conditions which make it unwise to sell such non-proprietary drugs dishonestly also appear to make it impracticable for the legitimate dealer to go to the

pains of furnishing an article that is pure and reliable (*Jour. A. M. A.*, Sept. 28, 1912, p. 1156).

Desirability of a More Restricted Materia Medica from the Standpoint of the Pharmacist.—H. P. Hynson points out that it is quite impossible for the pharmacist to guarantee the quality of the very large number of drugs which he must handle. In order that the pharmacist may perform his full duty to the physician it is urgently demanded that there be some limitation in the needless duplication of medicinal preparations (*Jour. A. M. A.*, Sept. 28, 1912, p. 1158).

Desirability of a More Restricted Materia Medica from the Point of View of Medical Instruction.—E. LeFevre holds that the present medical curriculum is by far too extended, so that it is practically impossible for the students to give sufficient time and attention to many fundamental subjects, because many others of minor importance have been introduced into it. It is pointed out that the teacher gives much time to unimportant drugs because questions concerning them are asked by state licensing boards and that these feel obliged to require familiarity with such unimportant drugs because they are contained in the Pharmacopeia (*Jour. A. M. A.*, Sept. 28, 1912, p. 1159).

The Drugs We Need.—O. T. Osborne believes that only a thorough familiarity with useful and valuable drugs, will be a cure for the mistake of using nostrums, proprietaries or absurd pharmacopeial preparations. He classifies drugs according to the object for which they are used and discusses those which are most valuable for each purpose. In general he is opposed to the use of mixtures and believes that the active drug can generally be given in a very simple manner. He discusses the best drugs for various purposes and omits all reference to "second- and third-rate drugs" and "third- and fourth-rate preparations." Having advised against the indiscriminate use of drugs and argued against the use of the many new drugs recommended as substitutes for well known medicaments, Osborne says: "I am not a drug nihilist. I believe thoroughly in the activity of drugs and thoroughly in their value, but I deplore the profession being fooled by promoters of so-called new drugs and new synthetics, when, if the reliable Pharmacopeial drug is properly used, it is perfectly satisfactory." He believes that physicians should notice new drugs but that they should do so critically. As regards mixtures he believes that their careful consideration will show the value to depend on some well-known drug only (*Jour. A. M. A.*, Sept. 28, 1912, p. 1160).

Useful Remedies.—M. I. Wilbert discusses the work of the committee on useful remedies of the Council on Pharmacy and Chemistry. Commenting on the large number of drugs he says that the present-day status of the use of medicines has been designated as consisting of series of vicious circles: Patent medicines are used by the laity because they are advertised by manufacturers, and they are advertised by manufacturers because they are used by the laity. The closely related proprietary medicines are prescribed by physicians because they are advertised in medical journals, and they are advertised in medical journals because this leads to their being prescribed by physicians. Official remedies are official because they are endorsed by text-books, and are endorsed by text-books because they are official. Wilbert explains the method which has been pursued in the compilation of a list of the more valuable drugs and states that, based upon this list, a short manual is in process of preparation. It is announced that the Council eventually will publish a critical review of the actions and uses of the more important and useful drugs (*Jour. A. M. A.*, Sept. 28, 1912, p. 1165).

Peruna Revived.—In 1906, the Peruna Company was notified that it either must put some medicine in Peruna or else Peruna could be sold only in saloons or other places carrying liquor licenses. To avoid classification of Peruna as an alcoholic drink a cathartic was added to it. This cathartic has decreased the sale of Peruna so that where formerly car-load lots were sold it is now sold by the case. In view of this the old style Peruna is again on the market but under the new name "Ka-tar-no" (*Jour. A. M. A.*, Sept. 28, 1912, p. 1204).

A New Publicity Law.—A law is now in effect requiring all newspapers to publish, twice a year, a sworn statement giving the names of their owners and chief stockholders. It also requires them to label as advertisements all editorial and news matter for which they receive pay. Unfortunately scientific periodicals are exempt from its requirements. The law should be made applicable to medical journals as it would be interesting to learn the source from which the financial support of many medical journals is derived. It would also be enlightening to see the "reading notices" and many "original articles" with the tell-tale suffix "(Adv.)". (*Jour. A. M. A.*, Oct. 5, 1912, p. 1299).

The Proprietary Evil.—The New York *Sun* discusses the proprietary evil and its effect on the public. Commenting on the general lack of cooperation among physicians in the promotion of their interests, this paper commends the action of the Missouri State Medical Association in adopting a resolution which pronounces it derogatory to the best interests of members to publish articles in medical journals whose advertising pages contain fraudulent or questionable advertisements. The *Sun* states that the lay reader cannot realize the importance of this enactment, not for the doctor alone but also for the interests of the public, which is the unsuspecting victim and the greatest sufferer from the abuses this resolution is aimed to correct, the prescription of secret nostrums and other proprietary drugs by physicians. The editorial says: "The credulity of the unthinking doctor is not a whit beneath that of the misguided layman, but it is far more contemptible. For this reason the public needs to be warned against doctors who prescribe drug preparations bearing some definite name or title rather than a regular prescription." (*Jour. A. M. A.*, Oct. 5, 1912, p. 1307).

Phenacetin and Acetphenetidin.—"If a prescription calls for 'phenacetin,' should the pharmacist dispense 'phenacetin-Bayer'—that is, the phenacetin manufactured by the original patentee—or would he be justified in dispensing the official acetphenetidin, manufactured by any reliable chemical or pharmaceutical house?" Unless the pharmacist happens to know that the physician in writing the prescription desired the Bayer brand, he would be justified in dispensing acetphenetidin, U. S. P. Physicians in general use the word phenacetin without intending to prescribe any particular brand or make. During the life of the patent the product became generally known as phenacetin. But a coined name for a patented article loses its proprietary character and becomes the common name of the article when the patent expires. In view of these facts—and also bearing in mind the findings of the A. M. A. Chemical Laboratory that the preparation on the market under the title "acetphenetidin" is of equal quality with the preparation sold under the name "phenacetin"—the pharmacist should recognize that acetphenetidin is identical with phenacetin, and that he may dispense the former when phenacetin is prescribed, provided, of course, that no special brand of phenacetin is ordered (*Jour. A. M. A.*, Oct. 5, 1912, p. 1308).

Harmful Effects from Pyramidon.—Exceptional claims are made by the manufacturers for the safety of pyramidon but the literature contains some instances of collapse and alarming symptoms following the administration of this coal-tar product. There is no doubt that the occasional use of an analgesic of this sort for the relief of headache, neuralgia, etc., is bene-

ficial and safe. It is the habitual and uncautious use which must be condemned. In spite of the clinical evidence presented by the manufacturers the positive statement that pyramidon is safer than other remedies of this class is to be questioned. A case of Dermatitis Medicamentosa following the use of Midol, a patent medicine containing pyramidon, is reported (*Jour. A. M. A.*, Oct. 5, 1912, p. 1309).

Samuels Returns to Wichita.—"Professor" Samuels, who dispenses a weak solution of sugar and salt at $5 an ounce for the cure of all known diseases, has returned to Wichita, Kansas. Some months ago he left the western city and transferred his mail-order business to Detroit, but Detroit was too hot for this quack and he therefore has returned to Kansas and is now doing business at the old stand. The authorities in Kansas should adopt the efficient procedure which drove this quack from Michigan (*Jour. A. M. A.*, Oct. 12, 1912, p. 1390).

Therapeutic Value of Agmel.—Agmel is said to be a concentrated syrup made from the juice of the maguey, or century plant, *Agave americana*. Chemical examination (reported to the Council on Pharmacy and Chemistry) showed it to be a kind of molasses containing a small quantity of formic acid which probably represents the sole medicinal constituent of the preparation (*Jour. A. M. A.*, Oct. 12, 1912, p. 1392).

Carter's Little Liver Pills.—These are claimed to "cure constipation, biliousness, sick headache and indigestion." A typical advertisement says: "Do not persecute your bowels. Cut out cathartics and purgatives. They are brutal—harsh—unnecessary." But while thus claimed to be free from purgatives, the analysis of this nostrum, published in "Secret Remedies," vol. 2, by the British Medical Association indicated the presence of podophyllin, licorice root, aloes and wheat starch (*Jour. A. M. A.*, Oct. 19, 1912, p. 1472).

D. D. D.—This is a nostrum exploited as an eczema cure both here and in England. As sold in the United States, each ounce contains, according to the label, as required by the Food and Drugs Act, chloral hydrate 7 gr. and alcohol 38 per cent. D. D. D. as sold in England does not contain chloral probably because the laws of Great Britain require that products containing such dangerous drugs as chloral be provided with a poison label. An analysis made by the British Medical Association, published in "Secret Remedies," vol. 2, indicated the following composition: salicylic acid, 0.75; carbolic acid, 1.18; oil of wintergreen, 1.00; glycerin, 9.28; alcohol, 65.10 and water 22.69 (*Jour. A. M. A.*, Oct. 19, 1912, p. 1472).

Celmo.—Celmo, a patent medicine sold as a cure for rheumatism, shows how a commonly-used, well-known drug may be put out under a fancy name, exploited by fraudulent claims and foisted on the public as something entirely new. While sold as an entirely new method of treating rheumatism an analysis made by the British Medical Association and published in "Secret Remedies," vol. 2 indicates that its chief constituent is the widely used acetyl-salicylic acid or aspirin. The analysts reported this "wonderful new remedy" to consist of: acetyl-salicylic acid, 35.5 per cent.; powdered charcoal, about 8.0 per cent.; malt extract, dry, 18.0 per cent.; talc, 14.5 per cent.; other mineral constituents 2.8 per cent.; water, 12.3 per cent.; alkaloid, 0.5 per cent.; extractive, about 8.0 per cent.; oleo-resin of capsicum, trace, and oil of juniper, trace (*Jour. A. M. A.*, Oct. 19, 1912, p. 1472).

Brown's Bronchial Troches.—Brown's Bronchial Troches, sold by John I. Brown, Boston, belong to the "cough lozenge" type of nostrum and are harmful only in a negative way in that they may be used to allay symptoms of what may prove to be an incipient lung or throat trouble of a serious nature. According to the analysis published in "Secret Remedies," vol. 2, these troches contain: powdered cubeb, extract of licorice, gum and sugar (*Jour. A. M. A.*, Oct. 9, 1912, p. 1472).

Antikamnia in America and Great Britain.—Examination in the A. M. A. Chemical Laboratory of a specimen of Antikamnia just received from London showed it to contain acetanilid but no acetphenetidin and thus to differ from the Antikamnia now sold in the United States which contains acetphenetidin but no acetanilid. This examination was made because the Antikamnia Chemical Company had claimed that the Antikamnia formula was the same for all countries and had threatened with suit for libel. While the protestation of the Antikamnia promoters probably indicates that the composition of the English Antikamnia will be changed in the near future a study of the Antikamnia advertisements in English medical journals shows that the British medical profession is not being apprised of the proposed change (*Jour. A. M. A.*, Oct. 26, 1912, p. 1550).

Dioradin Refused Recognition.—Dioradin was first submitted to the Council on Pharmacy and Chemistry in July, 1911. Because of the manifestly unwarranted claims made for its therapeutic value in the treatment of tuberculosis, the Council voted that the product be refused recognition without at that time considering the possible conflicts with other rules of the Council. Reform in the method of advertising having been promised by the American agent, the Council, when requested to give further consideration to Dioradin, considered the available evidence regarding the identity and value of the preparation. Examination of the evidence regarding the composition of Dioradin—claimed to consist of radium chlorid, iodoform and menthol in an ether-oil solution—showed serious discrepancies as to the amount of radium as well as to the identity and amounts of other constituents. It was further found that the experimental evidence was insufficient and biased. Then, too, in view of the difficulty of judging the effects of medicines in tuberculosis, the clinical data were unconvincing. There was nothing to indicate that the reported improvements even if they occurred could be ascribed to the mixture as a whole rather than to any one of its constituents. As a result of the findings the Council voted that Dioradin be refused recognition (*Jour. A. M. A.*, Oct. 26, 1912, p. 1556).

ABSTRACTS FROM CURRENT MEDICAL LITERATURE

Falling Sickness

At a recent meeting of the Practitioners' Society of New York, Dr. C. L. Dana showed a patient illustrating what he said could be strictly called a "falling sickness" for the reason that the trouble was characterized by "falling" alone, with no other attendant symptoms. The persons who show this symptom drop to the ground and immediately get up again with usually no feeling of vertigo or faintness. Dr. Dana interpreted these attacks in the patient exhibited as a form of "cerebellar fit," and thought that the boy had a lesion perhaps in the form of a sclerosis or congenital defect in the left lobe of the cerebellum. He also reported a case of what he termed psychic, or what some would call hysterical falling sickness, which he interpreted as a kind of mental "tic" affecting the legs instead of the face, neck or hands.

Status Lymphaticus

In a contribution to the pathology and clinical diagnosis of status lymphaticus, Dr. G. H. Cocks, in the

Laryngoscope for August, 1912, says that there are many grades of status lymphaticus from hyperplasia of the thymus gland alone to cases of the most pronounced type of thymic and glandular hyperplasia combined with hyperplasia of the genital organs and arterial system. He reports five cases, with autopsy findings, and says that of the theories advanced to account for the sudden deaths so often observed in status lymphaticus, the two most important are the theory of mechanical compression and the theory of hyperthymization. The relief afforded by tracheotomizing a case of thymic edema with a tube long enough to reach below the obstruction, or an immediate amelioration of the symptoms induced by the performance of thymectomy, is sufficient proof that death may be caused by mechanical compression exerted by the hyperplastic thymus gland. The fact that thymectomized animals offer considerable resistance to chloroform poisoning while animals and man with persistent thymus glands succumb to small amounts of this drug, seems sufficient proof of the theory of hyperthymization. It is thought that the hyperplastic thymus gland throws out an increased internal secretion which renders the organism more susceptible to hostile external influences.

Concerning the diagnosis of status lymphaticus, Dr. Cocks says that the condition is apt to run in families, and that an *x*-ray examination and the general appearance of the patient are the two most important aids toward making a diagnosis. The peculiar pasty look, the large amount of subcutaneous fat, the general rotundity of the limbs, the scant axillary and pubic hair, the undeveloped genital organs, and the enlarged external lymphatic glands have been noted so frequently that they form a symptom-complex almost pathognomonic of status lymphaticus. The difficulty of diagnosticating thymic enlargement by percussion may be appreciated when such a distinguished pediatrician as Dr. L. Emmett Holt states that he personally is unable to ascertain that condition by percussion.

Vincent's Fusiform Bacillus

In an experimental study of Vincent's angina, Dr. F. Lasagna, *Laryngoscope*, August, 1912, says that in only one case has he been successful in isolating the fusiform bacillus. Injecting a fifteen days' culture into animals he was unable to isolate the bacillus because of the presence of innumerable micro-organisms in symbiosis, especially pneumococci, streptococci, staphylococci and Vincent's bacilli. In one case he found a profuse number of fusiform bacilli united in masses, other micro-organisms being scarce, and describes his method of isolating and finally securing a pure culture of the bacillus. Injecting a fifteen days' culture into animals never produced death but merely a localized necrosis. He also took sloughing masses from the ulcerating surfaces of the anginas and inoculated them into the mouth and skin of guinea-pigs, obtaining extensive rapid necrosis at the site of injections. The experiments clearly demonstrate that the fusiform bacillus lives in symbiosis with other micro-organisms in the microbic ulcer, and together with them determines the initial lesion. After a few days it dominates and sometimes maintains the lesion. He concludes that Vincent's bacillus may be regarded as specific for necrotic angina since it alone can produce necrosis, as was proved by experiments on animals, and since in man pharyngeal ulcers assume necrotic characteristics after the appearance of the bacillus.

Tinnitus and Aural Vertigo Due to Uric Acid Diathesis

Scheppegrell, in the *Laryngoscope*, August, 1912, abstracts the report of a case of tinnitus and aural vertigo of six years' standing, cured as a result of a thorough treatment of uric acid diathesis. Urinalysis showed a considerable excess of uric acid. This led to the adoption of the successful treatment after all other medication had failed to give relief. The patient suffered from no deafness.

Lingual Thyroid

The total of reported cases of Lingual Thyroid is 67, and George Fetterolf, in the *Laryngoscope*, August, 1912, reports another case, the 68th on record. The diagnosis was made on the following grounds: The tumor, which was hemispherical in shape and measured about 6 cm. in both its transverse and antero-posterior diameters, was characteristic, being not only median and symmetrical but also at the base of the tongue. The tumor presented a semi-fluctuating sensation when palpated with the fingers, and there was an absence of any undue congestion, though there were present large engorged veins over the surface of the growth. This last condition is stated by Von Bergmann to be characteristic of lingual thyroid. The speech was distinctly thick and muffled, resembling to a slight degree the kind of speech produced by enlargement of the tonsils, but particularly quinsy, and the patient stated that his voice had always been of this character. In the reported cases death was caused only twice by the mechanical pressure of the tumor, and both of these occurred in infancy. Dr. Fetterolf says that when one considers the inocuousness of the tumor, the possibility of there being present in the body no other thyroid tissue, the remote possibility of the tumor enlarging, the tolerance to its presence of its possessor, the gravity of an extirpation and the real danger of myxedema following removal, such growths, unless threatening the integrity of the respiratory or alimentary tracts, had best be left undisturbed.

Neglect of the Trachea

Under this title, Dr. J. A. Thompson, *Laryngoscope*, August, 1912, says that all patients with old obstructive lesions in the nose have chronic laryngitis, tracheitis and usually bronchitis. All patients with atrophic rhinitis have chronic tracheitis and bronchitis. The larynx is usually involved but sometimes escapes. All cases of chronic bronchitis have also a chronic tracheitis, and Dr. Thompson says that every asthmatic patient he has ever examined had chronic inflammation of the trachea and larger bronchi. Acute paroxysms of dyspnea are usually secondary to acute exacerbations of this chronic inflammation. He concludes by saying that in acute infections of the upper air passages if tracheal injections be given early and combined with constitutional and operative treatment, the inflammation may be prevented from extending beyond the nose. Selected remedies given in oily solution by tracheal injection give better results than any method of treatment yet devised in the treatment of chronic bronchitis and asthma.

Alcohol in Accessory Sinus Disease

In the August, 1912, *Laryngoscope*, Dr. S. H. Lutz recommends the use of alcohol for washing out all of the accessory sinuses, and advises it as a regular method of treatment in all acute cases. In many chronic cases he has obtained better results from its use than from anything else. The strength of the solu-

tion is from 50 per cent. to full strength, reaching the maximum after three or four treatments. The alcohol should be retained in the sinus for a period of ten or fifteen minutes if possible. This method of treatment will not be beneficial if there is necrotic bone which should be removed by operative procedures.

BOOK REVIEWS

Home Nurse's Handbook of Practical Nursing. A Manual for Use in Home Nursing Classes, in Young Women's Christian Associations, in Schools for Girls and Young Women, and a working text-book for mothers, "practical" nurses, trained attendants, and all who have the responsibility of the home care of the sick. By Charlotte A. Aikens, Author of "Hospital Management," "Hospital Training-School Methods," "Primary Studies for Nurses," "Clinical Studies for Nurses." 12mo of 276 pages, illustrated. Philadelphia and London: W. B. Saunders Company, 1912. Cloth, $1.50 net.

Miss Aiken has, in this little work, once more illustrated her ability to add the practical to the teaching side of nursing and it would be well if every housewife and mother could be supplied with this little common sense book.

So many women are steeped in old-time traditions that have long ago outlived their usefulness that it is indeed refreshing to have a nurse impress upon the mothers the fact that it is a delusion to think that night air is any more injurious than day air. In truth, the book abounds with many just such good, common-sense dicta as this, which make it invaluable to the housewife. We bespeak for the work a well-merited, wide distribution.

Eye, Ear, Nose and Throat Year Book of the Practical Medicine Series. Edited by Drs. Casey A. Wood, Albert H. Andrews and Gustavus P. Head, of Chicago. Series 1912. Cloth, $1.25. The Year Book Publishers, Dearborn Street, Chicago.

This volume is one of a series of ten issued at about monthly intervals, and covering the entire field of medicine and surgery. Each volume is complete for the year prior to its publication, on the subject of which it treats. The volume on the Eye, Ear, Nose and Throat is not intended to be a review of the literature on the subject but to cover all of the more important advances in this special field of medicine. The authors are peculiarly fitted for the task at hand, as they all are writers of note and familiar with current literature. While all of the volumes of the series of Year Books are published primarily for the general practitioner yet it should be noted that this book on the Eye, Ear, Nose and Throat is well adapted to the use of specialists and if the Eye, Ear, Nose and Throat Year Book is taken for a series of years the subscribers will have a ready reference library in which it will be possible to find in a condensed form all of the important and recent advances in the specialties considered.

Infant Feeding. By Clifford G. Grulee, A.M., M.D., Assistant Professor of Pediatrics at Rush Medical College, Attending Pediatrician to Cook County Hospital. Octavo of 295 pages, illustrated. Philadelphia and London: W. B. Saunders Company, 1912. Cloth, $3.00 net.

In this book the author first takes up the anatomy and physiology of the normal infant, digestion and metabolism receiving special consideration. The bacteriology of the gastro-intestinal tract of the healthy child is briefly outlined and this is followed by a chapter on the attributes of the normal child.

The main portion of the work takes up breast and artificial feeding, particular stress being laid on the importance of four hour intervals between feedings and the now well recognized danger of excessive fat in the diet.

Dr. Grulee is largely influenced by continental writers in his treatment of infant feeding. The use of simple dilutions of whole milk with the addition of suitable carbohydrates, such as malt sugar and a starch, has the advantage of simplicity, and the method is gaining more adherents in this country. In justice to the so-called caloric method of feeding it must be said that Heubner and Pubner, whose investigations and writings have popularized the method, never intended to give the impression that 100 calories to the kilo weight of any foodstuff under any condition is the sole requisite in the proper nutrition of the infant. Each infant is a law unto itself. However, further clinical experience must be the final criterion to decide the relative merits of the "percentage" and "caloric" methods in feeding the normal infant. The author's presentation of the subject is clear and simple and while some of his conceptions may be at variance with the views of leading American writers, they are based on forceful arguments.

Following Czerny, a rather startling classification of certain infantile disorders is made. The advisability of grouping certain symptoms under the terms Exudative Diathesis and Spasmophilic Diathesis is questionable because the term diathesis is apt to breed in the student's mind a very indefinite conception of disease and he is led away from the attempt to make a clear diagnosis. While these subjects are discussed only in so far as they are of interest from the standpoint of infant feeding, the reviewer believes it is unwise to present the discussion in this form.

There are one or two corrections that should be made. On pages 98 and 161 the reader is led to infer that a strong ammoniacal odor to the urine is indicative of a high ammonia content and therefore suggestive of acidosis. Free ammonia does not appear in the urine except as a result of bacterial decomposition. The ammonia that appears in the urine in an acidosis is always bound and hence cannot be detected by its odor.

Digestion and Metabolism. The Physiological and Pathological Chemistry of Nutrition. For Students and Physicians. By Alonzo Englebert Taylor, M.D., Rush Professor of Physiological Chemistry, University of Pennsylvania, Philadelphia. Octavo. 560 pages. Cloth, $3.75 net. Lea & Febiger, Philadelphia and New York, 1912.

The physiological and pathological chemistry of the body is justly considered one of the most difficult subjects in medicine and probably the one of which the average medical man knows the least. The scattered literature and the apparently contradictory results and conclusions arrived at by various investigators are in a measure responsible for this condition. There is no question but that as knowledge of this subject increases it will have a great deal more direct bearing on the practical management of disease.

Professor Taylor has, in this book, presented the known facts of the subject, and when facts were lacking he has given the most reasonable theory to fill the

gaps. The chemical description of foodstuffs is not elaborate but entirely sufficient for understanding the text. Following a broad description of ferment action the author next shows how the process of digestion converts the large non-diffusible molecules into small diffusible ones and converts complex molecules into simple ones so that they may be utilized in the metabolic processes of the body. He then shows how these products of digestion pass through the various chemical changes to conserve the tissues of the body, maintain temperature and physical work. Throughout, the author has made use of graphic formulæ and diagrams to show the transformations which foods undergo from the time they are taken into the mouth until their final disposition. By this method a living picture is given of the chemical changes, so that the reader obtains an excellent concept of the bodily processes. The abnormal is considered along with the normal, so that as clear an insight as is possible at this time is obtained of metabolic disturbances, such as occur in diabetes, gout, auto-intoxication, acidosis and nephritis.

In short the book has been written with the idea of giving the student and practitioner a working knowledge of the chemical changes which occur in the body in health and disease. This work fills a want which has long been felt by American physicians.

Sexual Impotence. By Victor G. Vecki, M.D., Consulting Genito-Urinary Surgeon to the Mount Zion Hospital, San Francisco. Fourth edition, enlarged. 12mo of 394 pages. Philadelphia and London: W. B. Saunders Company, 1912. Cloth, $2.25 net.

The several editions through which this volume has passed testify to its appreciation by the medical profession. The anatomy and physiology of the male sexual organs is briefly considered. The various forms of impotence are described and this is followed by a careful and dispassionate consideration of the influence that various foods, beverages and drugs have on virility.

The most interesting and practical portion of the book is that on treatment, and this is the portion in which most of the additions and modifications are found. The psychical treatment, medicaments, hydro- and electro-therapeutics, massage and gymnastics are fully discussed, the usefulness and contra-indications of each considered. The recent gains made in urology by bacteriological discoveries, and the urethroscope, with their bearing on the subject of impotence, are included, so that the work is thoroughly up to date.

The author's grasp of the subject is comprehensive. He is by no means a faddist, and his rich clinical experience makes him an authority on a subject which is of great importance.

The Surgical Clinics of John B. Murphy, M.D., at Mercy Hospital, Chicago, June, 1912. Published bi-monthly by W. B. Saunders, Philadelphia & London. Paper, price $8 per annum.

This number opens with an interesting description of an exhibition of previously operated cases. Then there are considered a number of practical subjects such as impacted Colles' fracture, fracture of the olecranon, division of brachial plexus, double cervical rib and several others. The number ends with a description of five diagnostic methods original with and in use by Dr. Murphy. These include the kidney "fist percussion," the "hammer-stroke percussion" for gall-bladder disease, the "deep-grip palpation" for the same purpose, the "piano percussion" for the detection of small amounts of fluid in the abdominal cavity, and the "comparative bi-manual examination" of the abdomen for suspected appendicitis.

A Text-Book of Gynecology. By William Sisson Gardener, M.D., Professor of Gynecology, College of Physicians and Surgeons, Baltimore, Md. With 138 illustrations in text. Cloth, pp. 286. D. Appleton & Co., New York and London. 1912.

The aim of the author in this work has been to supply a brief and concise text upon purely gynecologic subjects divested from those features which he feels should have place in a general surgical text book. His desire, likewise, has been to furnish the medical student, already overcrowded, with a compend containing sufficient of each subject to constitute its thorough presentation and no more.

In a general way we may say that the various subjects peculiar to gynecology itself have been covered, though in some instances decidedly briefly, and we would take exception to a statement in the opening paragraph relating to the examination of the patient. The author remarks that there is rarely any occasion to go into the family history, and we are at a loss to understand why an exception should be made in a gynecologic examination that will not hold good in any branch of medicine. As a matter of fact, most practical gynecologists are as insistent upon a thorough-going family history, and perhaps more so, than any other medical or surgical specialist. This we believe to be right.

The work is well illustrated, the descriptions are concise, and the type and paper exceedingly good.

Collected Papers by the Staff of St. Mary's Hospital (Mayo Clinic) For 1911. Octavo of 603 pages, illustrated. Philadelphia and London: W. B. Saunders Company, 1912. Cloth, $5.50 net.

Because many of the papers read before medical societies by the St. Mary's Hospital staff during the year 1911, remained unpublished at the close of the year, though in the hands of the publishers, the author decided to include all papers read or published up to January 1, 1912. The appearance of this volume still further emphasizes the steady march of progress characterizing the St. Mary's clinic as well as affording a permanent form in which to preserve the contributions to medical literature emanating therefrom. Although many of these articles have already appeared in various journals of the year, yet it is a distinct asset to be possessed of the collection of all such articles in a permanent form.

This particular volume is characterized by a greater abundance of material from the hands of the members of the staff other than the Mayo brothers, and particularly the younger members of the staff. The contributions concerning the utilization of skiagraphy in the field of genito-urinary surgery are particularly well done, and anyone familiar with the excellent work of Drs. Braasch and Selby in the field of pyelography and ureterography cannot help but feel grateful for the excellent presentation of their subjects. Unfortunately what must have been most excellent negatives have not been reproduced in prints with the same degree of excellence that marks the interpretation of the original negatives. This of course holds true in all reproduction of x-ray photographs.

May the author of this sequence of contributions from the Mayo clinic live to preserve the files for many, many years.

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ORIGINAL ARTICLES

NERVOUSNESS IN CHILDREN—ITS CAUSES AND PREVENTION *

CHARLES F. NEU, M.D.
INDIANAPOLIS

There is probably not another term in the realm of symptomatology used as frequently by the sick as that of nervousness in attempting to describe their feelings, especially when suffering from diseases of the nervous system, whether of so-called functional or organic basis. It is also pretty safe to say that there is not another term in medical literature applied to as many different conditions. This being the case, it naturally follows that any attempt to describe or interpret it as a tangible specific subject meets with the relative difficulty encountered in one's inability to limit its application to a specific condition or group of conditions.

Again and again an attempt has been made to elicit from patients enumerating nervousness as a complaining symptom, definitely and specifically what condition or meaning it was desired to convey, with the almost invariable result of being informed that there was present an indescribable feeling of discomfort and negative feeling-tone, frequently apart from and in addition to any manifest physical or mental instability. Not only is it difficult to define just what is meant by nervousness, but it is also just as difficult to draw the line between what may be termed physiologic or normal conditions of nervousness and pathologic or abnormal states. On the other hand, it is comparatively easy to recognize what we are pleased to call a nervous temperament or a nervous constitutional make-up. It is another question entirely to describe all of the elements that go to make up that temperament or make-up. It has been said "that when an individual cannot endure the ordinary difficulties and conditions of life, or the natural physiologic functions of the various organs of the body without manifesting untoward distress and disturbance, it is plain that there must be some natural infirmity or instability of the nervous system.

The essential difference between the neurotic adult and the neurotic child is one of degree modified by the influence of numerous and varied experiences, as well as of a more mature mental and physical development. The child being less under the control of judgment, reason, volition and the emotions, will react more promptly and definitely in relation to the disturbing factors. These reactions are almost wholly outward or objective manifestations, whereas in the adult so many of them are inward or subjective disturbances. As a consequence, the neurotic child is characterized physically by evidence of want of normal nervous balance, signs of irregular nervous action in the various movements of the body musculature, particularly of the extremities, face and speech. Mentally, there is impairment of the power of attention, not necessarily any lack of intelligence, but more particularly a defective, inefficient power of control. Obsessions are often a marked feature in neurotic children, their weaker minds being more apt to become the victims of predominating or overpowering ideas. Moral obliquities, such as lying, thieving, etc., are also common in such children, more the result of an exuberant, romantic, riotous imagination than of any direct conscious or preformed reasoning or judgment.

In attempting to determine and analyze the conditions or factors which are instrumental in

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laying the foundation of a temperament or constitutional make-up of this nature, it will be found that for all practical purposes they may be included under three distinct groups, namely:

1. Hereditary influences.
2. Nutritional and hygienic conditions.
3. Educational and disciplinary influences.

We cannot with any degree of definiteness explain how it happens, yet at the same time it can scarcely be doubted that every individual inherits in his or her substrata, not only parental, but also ancestral qualities and characteristics of physical and mental make-up, which are ready to spring into activity of function at different periods of life, so that the qualities of one ancestor may come into existence at one period, and those of another ancestor become evident at another period of the individual's life. The single sperm cell, integrating the qualities of generations of male and female ancestors, unites with the germ cell, which in like manner has incorporated the qualities of male and female progenitors, and this combination gives rise to a new organic product, which, minute as it is, contains in latent form all of the potentialities and actually displays during the evolutionary process many of the characters and qualities of the ancestors of both sides, and in addition, evinces new features as a result of that combination, properties which are unlike the constituents which entered into such original combination. This principle in hereditary transmission is fully recognized by all who have studied the subject throughout the whole realm of creation, not only in the animal, but also in the vegetable kingdom. This principle, furthermore, is being daily put to practical usefulness in the production and development of a better and more highly organized product in the various phases or forms of organic life not human. The human organism is subject to the same organic laws, passes through the same phases, and takes its corresponding part in the ultimate goal of the creation. It may differ to some extent in the degree or form of change and in the time required for their evolution, but the essential fundamental principle is the same.

In considering the question of the hereditary factor or factors transmitted, it is customary to speak of certain predispositions, tendencies or properties in the make-up of the individual, either physical or psychical, or a combination of both, as the hereditary element. These necessarily vary in intensity and number, and are said to be more marked in the transmission of the maternal than of the paternal characters, greater in males than females, and more in those born after the manifestation of definite disorders than before their appearance.

It is still a matter of controversy whether or to what extent so-called acquired characters are transmitted, yet it seems reasonable to assume that even if not transmissible they at least exercise a modifying influence either directly or indirectly on the constitutional make-up of the individual. This fact seems to be fully established when one considers the injurious effects on the offspring of such conditions as alcoholism, syphilis, tuberculosis and so-called functional types of nervous and mental disturbances. Von Ziehen states "that after heredity, chronic alcoholism is the most important factor in the transmission of neuropathic and psychopathic states." It is said that in at least 25 per cent. of individuals afflicted with epilepsy a history of alcoholism can be obtained in one or both parents. In 1,000 cases of mental defectiveness examined by Fournier, there was a history of alcoholism in the father in 471, in the mother in eighty-four, and in both parents in sixty-five. It is also a rather common observation that children of alcoholics manifest lessened vitality, a low nervous tone, weakened vital organs, less competent to resist and endure disease or fatigue, less power of recuperation; are almost certain to manifest more or less incompetency or non-resistance, and, as a consequence, readily fall victims to the strains, temptation and unsanitary conditions of life. As regards syphilis, no less an authority than Zichen has found positive indications of syphilis in 10 per cent., and probable syphilis in 17 per cent. of mental defectives. As to tuberculosis, it may be said that while even in mentally healthy children a history of tuberculosis is obtainable in 15 per cent., yet in mental defectives the percentage is much higher, varying from 23 per cent. (Piper) to 56 per cent. (Koliez). Also taking epilepsy as an example of so-called functional nervous disturbance, the influence of heredity is indicated by the fact that in 35 per cent. of epilepsies a history of epilepsy or insanity is traceable in the ancestors or collateral relatives. There is a family history of epilepsy in two-thirds of the inherited cases, insanity in one-third and both in one-tenth.

Improper food, some becoming half-starved, others overfed, others unsuitably fed, improper care and hygiene, never give rise to a good standard of physical or mental development, and such as a consequence, are unable to resist long or endure well those conditions which sap the vigor or

poison the system when the test comes. Caulley says "that there is not the shadow of a doubt that on the methods of feeding and rearing infants during the early stages of existence depend the health and strength of the children, and in fact the strength and physique of the nation. One is almost justified in asserting that the health and physique of the nation varies directly as the food supply during infancy and early childhood." Insufficient and improper food means malnutrition, stunted growth, imperfect physical development, inattention, want of concentration, instability, irritability and other evidences of imperfect and retarded cerebral development. If not actually more prone to contract disease, they are undoubtedly more prone to suffer severely when sickness does overtake them. Just as it is said that a sound body makes for a sound mind, so it is true that a feeble body is often the possessor of a feeble mind or unstable nervous mental make-up.

Proper and sufficient rest and sleep for the young child is only second in importance to that of good and proper food. Regularity in the hours of sleeping, feeding and awake infuses a sense of order which remains with them throughout life. Want of fresh air and sunshine, exposure to extremes of heat or cold, insanitary dwellings and surroundings often lay the foundation for the future instability and susceptibility of the nervous and mental make-up of an individual. Bad light, for example, may cause a great deal of harm to a child, even though the eyesight be good. Often the child seems stupid and slow, nervous, cross and irritable, when in reality the condition is due to the strain of tired eyes and the continued straining of the eyes must be a strain on the nervous system. These induce a more or less morbid restlessness, both mentally and physically, which eventually results in an enfeeblement of will and mental power which renders ineffectual the means employed to correct evils resulting therefrom.

The presence of physical defects or diseased conditions are very often responsible for abnormal nervous manifestations. Defective and bad teeth interfere with the proper mastication of the food, and this in turn leads to digestive disturbances and malnutrition, or to the absorption of septic products from an unclean oral cavity or injurious products of the impaired digestive process. Obstructions in the nasal cavity, adenoids in or catarrhal conditions of the nasopharyngeal cavity, or enlarged tonsils interfere with the process of respiration, lead to deafness, mouth-breathing and all the conditions that may follow that pernicious habit. Defective hearing, when present, often makes the child seem dull, backward, inattentive and irritable, and manifest various nervous and mental deficiencies or abnormalities. Visual defects likewise produce a rôle of disturbances, greatly interfering with the normal functioning of the nervous and mental activities.

However great and strong may be the hereditary tendencies or predispositions, for such after all are what are transmitted, these are not as important or powerful in the evolution and development of the organism that comes into existence as are appropriate and judicious nurture, education and training, which can also more or less modify and neutralize many defects and weaknesses dependent on a bad heredity. It has been truly said that the time of most vital importance in a human being's life is from birth until the age of two to three years. The most striking characteristic of the new-born child is its unpreparedness for life. The brain centers are in a pitiable state of undevelopment. Its special helplessness at birth, its long period of dependence on outside aid is rich in biologic and sociologic significance. It presupposes a specially high development of the protective and fostering care of the parent.

Injudicious education and training alone may not only aggravate or intensify an inherent mischief, but may also give rise to an individual susceptibility or predisposition to nervous or mental derangements. Parents not only transmit the taints and vices of Nature, but too often foster their growth and development by bad example, by foolish training when the mind is very, if not the most susceptible, and a direction given to actions and conduct decisive for life. Parental harshness and neglect, repression of the child's natural feelings, stifling its natural desire for love and affection, thus tending to drive it to a morbid self-brooding, or compelling it to seek solace in a world of weird, vague and unhealthy fancies. Foolish indulgence, from which it never learns the lesson of self-control or of respect for or recognition of the rights of others is, on the other hand, just as injurious as the former conditions.

Parental affection may be well founded, but too often the parental responsibility seems to begin and end with silly indulgence of the child. Often artificially fed, then pampered and spoiled, it grows without discipline to its desires, without a knowledge of the relations to those about it, and thus handicapped, it becomes domineering,

resenting any interference which may oppose its desires, and overbearing on the one hand, or indolent, dissipating and intemperate in the habits of life on the other hand. There is a vast difference between the individual who has been schooled to meet some of the hardships and difficulties of life, and the individual who has been weakened by protection, whose nervous reactions have been heightened by education and training; the one apparently recovering from a breakdown in a few months, the other often requiring as many years.

The natural pride of some parents in the accomplishments of their children often urges them toward educational and other attainments far beyond their capabilities, and, as a result, collapse follows, from which they practically never recover, and, while not depreciating the value of higher education for those who are in every way fit, it is safe to say that a diploma gained at the expense of an overworked physical and mental organization is certainly a poor investment in life's securities. There is no doubt that such morbid tendencies could be neutralized or rendered harmless by directing their activities along healthier channels by the influence of good education and sound training. Church writes "that a defective education that omits discipline and the cultivation of self-control, thus illy fitting the child for the rude shocks of life, may be a predisposing cause of neurasthenia."

Cramming to meet the various examinations and tests tend to make mere machines of some children, to impair their ability to reason, to produce instability and irritability of the nervous and mental activities. The evil influence of this overtaxation and strain is often seen in the tendency of many children to act queerly, to disappear from home or to run away from school toward the close of various school terms, such manifestations more frequently occurring in children having a neurotic family history.

Morbid sexual desires, instincts and habits are often generated by pernicious methods utilized by girl nurses in their efforts to quiet the restlessness and discomfort of some children, and such habits eventually lead to grave mental and moral delinquencies.

The psychological influence of those about them is often responsible for the nervous restlessness and waywardness characteristic of many children. There is still another question of a sociologic and economic nature which bears a more or less direct relationship to and influence on not only the development, but also the resistance and vitality of the organism. It has been fully demonstrated in other forms of animal life that the size of the offspring can be directly influenced by the character of the diet and state of nutrition of the mother, and if this be true of other forms of animal life it must also be true of human life. Furthermore, it cannot be otherwise than that where during the pregnant state or even while nursing her offspring the mother is subjected to unwholesome nutrition, unhealthy environment, overwork physically, worry or excessive strain mentally, has her system saturated with poisons introduced from without or arising from diseased processes within the body, must lower the vitality and vigor of the offspring.

Another feature is found in the social condition which objects to and interferes with the state of motherhood. Selfish motives, extra expenses, restriction of liberty, added duties and responsibilities incident to the care and rearing of children, desire to wait until more suitable conditions are reached, means utilized to prevent motherhood, one and all cause more or less worry and strain that is so nerve-wasting and dread-inspiring that many previously healthy mentally, physically and morally, become unstable and hysterical, neither fit for wifehood nor motherhood. When such are compelled to permit the pregnant state to run its course, they rarely accept the situation philosophically or perform the duties and functions of motherhood satisfactorily. Under such conditions the maternal instinct cannot be expected to overcome inherent deficiencies of education and preparation for the performance of that function. Maternal instinct cannot recover the energy spent in fear and anguish, nor is it probable that the development of the offspring is not influenced by such conditions.

From all of these considerations some conclusions may be offered as dealing with the difficulties to be overcome. First, we must admit that the unborn child is entitled to certain rights. It has the right to life. It has the right to protection from hereditary taints of degeneracy. It has the right to health and those conditions of life conducive to health. It has the right to Nature's food, which is mother's milk, with this in its normal, healthy condition. It has the right to natural protection, proper care and proper education and training. These rights being admitted, they demand the recognition of certain duties and obligations, amongst which may be mentioned a clean and normal life on the part of both parents, both before and after conception; constant supervision and regulation of the mode

of life of the mother, particularly during pregnancy and after birth; proper care, feeding, education and training after birth, for if born healthy, babies can generally be brought up healthy by clean, sensible feeding and by reasonable attention to the hygiene and sanitary conditions surrounding it and by proper training of its mental and intellectual faculties. A prominent authority has said "that it is to the condition of the women and children, mentally, morally and physically, that we must look if we have regard for the future of our land." These can be improved by better education of the mothers, by the creation of more favorable conditions of life, and by the prevention and correction of physical defects and faulty tendencies during the early period of growth and development, for, as Goodhart writes, "It is in childhood, if at any time of life, that the opportunity offers of educating the individual out of faulty habits into a better regulated state of his nervous system."

While the solution of the problem involves sociologic, economical, educational and disciplinary difficulties, yet paramount to them stands medical supervision and direction. Consequently, on us as physicians lies the responsibility and rests the duty of advising and assisting to institute those measures looking to their solution. It is a duty encumbent on the medical profession, and one that they owe to humanity and should not shirk, to educate those who are in charge of the rearing and training of children. They should endeavor as far as possible to promulgate such information as will create a healthy public opinion which will not only aim to correct existing evils, but will also seek to prevent their production by restricting procreation to the fit and preventing procreation by the unfit. While it is true that too often but little attention is given, and much medical advice is wasted because of ignorance, carelessness, indifference or criminal neglect of those to whom it is given, yet that is no excuse why they should waver in the performance of their duty to their fellow-creature. Too often this lack of influence of medical advice given is due to the lower moral standard of the physicians themselves, for one could scarcely expect advice of this character to have much influence if given by those who have been accessory to any interference with Nature's laws. In order to inculcate higher standards of morality into public opinion, it is necessary for the medical profession as a whole to themselves maintain that higher standard.

Assuming a child to be healthy and robust, to be properly fed and clothed, to have as part of its school course proper games and gymnastics, there is no reason why study should impair their health, either physically or mentally, if properly supervised and directed. Constant brain work with very little exercise, with insufficient or improper food, with faulty positions, attitudes or habits, with uncorrected physical defects, with unhygienic surroundings, will tend to impair or destroy the strongest constitution. Long hours of study without recreation interspersed is a trying thing for children to do, as they are probably much more diverse in their ways of thinking than our theories suppose. Certainly there is great risk in overloading the memory of the child with little details and impairing the development of the mental powers. The mental training of childhood, youth and early puberty is a question of paramount importance, as it calls for an education for the daily increasing requirements and competitions of modern life, which are apparently reaching higher and higher standards. One cannot fail to frequently observe the great discrepany manifested between the views of some doctrinaires of education and the views of those who have practical knowledge of the laws of Nature, and too often the demands and exactions of the educationalist, aided by the over-indulgent and aspiring home influences, determine and produce lasting effects in the lowering of the vitality and resistance of the young child.

To sum up, it may be said that the solution of this problem can never be reached by the sociologist alone, or by the economist, or by the educationalist, or by the disciplinarian, or even by the physician. We can only hope to attain the desired goal by the closest cooperation of all. The sociologist must seek constantly to improve the social and moral conditions of life; the economist to determine ways and means to alleviate the intense struggle for existence; the educationalist to better understand and direct the intellectual capabilities; the disciplinarian to instill self-reverence, self-knowledge and self-control, and the physician to supervise and direct all such measures as will be most conducive to the development of a healthy body and mind.

An analysis of the situation discloses the fact that an immense amount of money and a great deal of energy is being spent in caring for the nervously unfit individuals throughout the country who are rendered incapable of caring for themselves adequately, and while this is humanitarian and absolutely necessary from every standpoint, yet if the same amount of money

and the same amount of energy were spent in determining means and measures to prevent the production of these beings and to give them appropriate rearing, education and training after their creation, a great deal more good would undoubtedly be accomplished. Before radical measures can be carried out, however, the people must be educated to recognize its usefulness and necessity, and the responsibility of this educational propaganda devolves almost wholly on us as physicians.

MENTAL DISTURBANCES TAKEN FOR INSANITIES *

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Back of every case of mental disturbance is a physical derangement to account for it; often it is so much obscured by the mental symptoms as to be overlooked or passed by as of no significance. However, as the underlying cause, it is of the greatest import, and its neglect is a serious mistake. I would call attention to some such conditions overlooked: *apt mistakes in diagnosis of mental disorder.*

TYPHOID FEVER

My first experience after I had left the university hospital was in an outbreak of typhoid fever marked by the occurrence of intestinal hemorrhage and phlebitis, whilst delirium was not so prominent a feature.

A woman past 60 who had just lost a lawsuit over her father's estate developed a melancholia. I found profound mental depression, and on my next call she asked me not to come again as she was not sick. But I was called again the next day to find it a typhoid case with coated tongue, enlarged spleen, rose spots and subnormal oral temperature.

The mental depression with subnormal oral temperature persisted for two weeks when following a profuse tarry stool she greeted me on my next call with "Well, Doctor, I've come to!" Till then her mind had been under a cloud, and the melancholia the dominating symptom. There had been none of the usual delirium of typhoid, and no fever. After this there was fever, looseness of the bowels, other hemorrhages, and an ordinary course and convalescence.

Delirium in typhoid fever may be maniacal: I saw a young man in the care of my preceptor some years ago it took six strong men to restrain. He thought he was in a strange place and was bound to go home.

It is a fatal mistake to commit a person with typhoid fever as insane. A girl of 19 was admitted to the Northern hospital, dying within a few days. She had great abdominal distention on admission, enlarged spleen, dicrotic pulse, sordes, profound hebetude with high fever. Widal positive. Had she not been an imbecile, her symptoms might not have been misinterpreted and she bundled off to her death at the asylum.

Yet the case was duplicated within the month.

Asked by telephone to meet the incoming train with stretcher and bearers, a strange thing, I found a woman in collapse. She was utterly limp. Her swollen tongue hung out of her mouth, and her eyes were rolled up in their sockets, the whites showing. Her pulse was rapid and very weak. She had been on the way since morning and it was after dark. At once considered typhoid, the Widal test was awaited, but she died before it was reported. Autopsy revealed extensive ulceration of Peyer's patches. Widal positive. Her relatives learning it to have been typhoid held their doctor culpable for committing her, and ruined him. Years before she had been an inmate of the asylum, and the mental symptoms masking the others, naturally it was presumed to be a return of her mental trouble.

In the earlier stages of most cases of typhoid fever, there is an obtunding of consciousness and dulling of the special senses—the typhoid state—which names the disease. This often passes in the second week into actual delirium with hallucinations and may be mistaken for an acute insanity. Marked mental disturbances are not common at the onset of typhoid fever, but are severe, usually, and occur in those with a psychopathic tendency. The features are those of an acute intoxication. Changes are found in the cortical cells. In such cases patients may be committed to the asylum as insane. Men wander away in a dazed state and are found long distances from home unable to give account of themselves. Or they stray in the streets till taken in charge by police. This confusional state is a grave symptom, death occurs in most cases. Some show maniacal symptoms: They make violent attempts to escape from their surroundings, or hide in barns or freight cars for days, and the like.

Mental derangements not uncommonly follow typhoid fever, and may be transient or persistent. Their recognition is not difficult. Kraepelin groups them into three classes: Isolated delusions or fallacious sense perceptions; conditions of exaltation; and conditions of depression. Often they require institutional care.

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GANGRENE OF BOWEL

He came of a November, a Russian Jew with Irish name. He had been a pedler hawking potatoes from a dilapidated wagon drawn by a derelict horse. When his natural hopefulness and cheerfulness became boisterous after he had the grip, he was brought to the asylum. He never complained, but was mischievous and garrulous. One night after he had called a Catholic Russian Pole "Brother," who resented, he turned blue and died. Autopsy showed gangrene of the bowel with extensive perforation from an old purulent appendicitis. The abdominal condition had been unsuspected. Evidently, "the grip" was appendicitis, the garrulity and mischievousness had taken the place of abdominal pain.

Another garrulous old soul, never complaining, but over-solicitous for his fellow inmates, dying without seeming sick over night, likewise showed gangrene of the bowel with perforation, unsuspected during life. Yet, these men stooped in walking, carrying the hand in front of the belly. There was no pain nor tenderness, but instead mental exaltation and garrulity; as if the absorbed products of necrosis and intestinal stasis produced a delirium.

TRAUMATISM OF CHEST

A young man in a scuffle at a church party was squeezed till he fainted. A few days later he fell while chopping wood and becoming maniacal, six weeks afterwards came to, at the asylum, the day of his admission. When finding a broken rib behind pointing into the lung, we strapped it. Mania may be a vicarious expression for pain.

HEART DISEASE

A passenger conductor who some years ago had been bumped off the rear of a caboose and laid up for a time in the railroad hospital, developed insufficiency of the mitral and aortic valves. He was laid off, unable for duty. His child taking ill and not recovering as quickly as expected, he went to the office of his doctor and choked the doctor's partner to show what he would have done to the other fellow had he got his hands on him. Then going down the street to a shoe store he bought all the shoes on display. Immediately apprehended and fetched to the asylum, raving, I found broken compensation with a loud murmur audible at a distance. He improved so that he was in the ward for convalescents in a couple of months. On account of a labial tremor and the great mental excitement on admission his case was pronounced one of general paresis. His mental symptoms had almost disappeared when, given a severe tongue lashing by another patient with persecutory delusions, he had a convulsion which left him paralyzed and unconscious. The embolism gradually cleared up and he was discharged sane in a month. Later, in the lawsuit to establish his sanity, he had a recurrence, and was readmitted. On his way to mass he had to run to get out of a storm, which broke compensation. Put at complete rest for ten days, the mental disturbance disappeared with restored compensation.

It is but recently it has been recognized that there is a cardiovascular psychosis or insanity of heart disease. In many cases of heart disease there is more or less mental disturbance. It is most apt to occur if not only in those with associated aortic lesions. These patients have the cardiac facies: skin, clear and transparent; eyes, bright and watery, somewhat staring, with wide palpebral slits; mouth, tense; rest of face, sunken. The mental disturbance in heart disease is greatest during the night and early morning hours, disappearing with the light of day. The patient wakens from sleep unable to recognize his surroundings. He regards his attendants as others of more familiar acquaintance. His confinement seems an attempt on his life. The administration of medicine is as an attempt to poison him. With the coming of light he suddenly comes to recognize his surroundings as if wakening from a dream.

Henry Head, editor of *Brain,* has studied the hallucinations of heart disease. The auditory hallucinations are rhythmic sounds as the tolling of a bell. The visionary may be as of a shrouded figure stalking with ashy face and staring eyes and surrounded by a mass of hair.

Where compensation suddenly fails, motor restlessness is almost always a concomitant, amounting at times to maniacal excitement. Craig has shown motor restlessness is associated with low blood-pressure. The anemia of the brain accounts for the delirium.

It is the same in chronic Bright's disease.

BRIGHT'S DISEASE

Many cases of Bright's disease are declared insane in which the mental symptoms pass with the disappearance of an albuminuria. I have seen uremic old men committed as senile epileptics! The culmination of Bright's disease is uremia. It may find expression as a cerebral disturbance, a paralysis, dyspnea, gastro-intestinal disturbance, renal, cardiovascular, or all or several combined.

Cerebral uremia is marked by convulsions, delirium or coma. Prodomata are present gen-

erally: diminution of urine, headache, dizziness, spasmodic movements of the limbs. Convulsions like those of epilepsy come on: with a sudden loss of consciousness tonic and clonic convulsions, biting of the tongue followed by stupor. The initial cry is wanting often and the seizure may be unilateral, and the temperature after the fit subnormal. Uremic delirium may be maniacal—folie Brightique—of Dieulafoy. There is motor restlessness; great excitement, insomnia, constant talking and shouting. The patient cannot sit still and becomes violent when restrained. There may be hallucinations of seeing and hearing: squadrons of cavalry maneuver on the roofs, children troop by singing and carrying bright lights, or there may be pistol shots. Or the delirium may be a melancholia: the patient sits motionless, dull of eye and expressionless in face, mute and resigned. He may fear or welcome death or be suicidal. He may have pronounced delusions of persecution, refusing food for fear of poison, or believe himself guilty of the most horrible crimes and dread punishment. Uremic delirium may assume the erotic and the religious forms. It may last from days to months. It may break out suddenly, acute from the first; or be ushered in by incoherence in word and gesture gradually reaching its maximum. It may be continuous or show slight remissions or transient improvement. Alcoholic antecedents predispose to it, so does previous neurotic troubles and heredity. The delirium as but one of the general symptoms of Bright's disease may be easy of diagnosis, or as the dominant symptom, difficult and mistaken for insanity. Urinalysis would determine.

DIABETES

A child was brought to the hospital as a dangerous lunatic. Insanity is rare in children. He had driven the family out of doors with a butcher knife. He was about the size of a 6-year-old, though said to be 8. He cried much and whispered to himself constantly scratching his privates. He felt as if his head was wrong and reiterated "Give me back my mind." The sight of a woman threw him into terror. I learned that his grown sisters had whipped him severely for scratching his privates and then he had made for them with the butcher knife. He had sugar in the urine; and was diabetic, rather than lunatic. The collateral relationship of diabetis to insanity has been recognized.

INTERNAL SECRETIONS

Some forms of insanity are presumed to be due to perversion of some of the internal secretions. A museum freak, a woman weighing 400 pounds, had persecutory delusions. Autopsy showed malignancy of pancreas. Another woman very fleshy developed acute mania after taking thyroid extract to reduce her weight.

EXOPHTHALMIC GOITER

Hyperthyroidism is always associated with more or less mental instability. I have found exophthalmos frequent amongst the insane. Tremor is pronounced in these cases. Goiter fluctuates. Pulse is rapid. While you talk with these patients they cannot sit still, but are constantly changing from one thing to another; shift in the chair, tap the floor with the foot, rearrange the clothing, go to the window. Hyperactivity renders them impotent.

Case 1.—Man, brother died at asylum, has exophthalmos; rapid pulse; goiter; marked tremor; restless; talks incessantly; emotional incoherent exaltation; persecutory delusions.

Case 2.—Man, university graduate, Ind.; Ph. D., Wisconsin; teacher; sister insane; marked exophthalmos: goiter: tremor; rapid pulse; sexual impotence; tried to kill wife; suicidal; delusions of persecution; refused food for fear of poisoning. Looks at me quizzically and says, "You won't kill me, will you?" Orates "Blow ye gentle zephyrs, blow. Blow my soul away from this world of woe." Sleepless; constantly in motion till exhausted; improved after self-starvation.

Case 3.—Man, enough like the last to be his twin; came in with throat cut; suicidal; seclusive; delusions of persecution; feels his arm and asks me if he is not fat enough for me to cut up into sausage; imagines I want to fatten him for that purpose; refuses to eat; marked exophthalmos; goiter; tremor, and rapid pulse. Improves on semistarvation.

CONCLUSION

Residence with the insane for six and a half years has convinced me that many cases could have avoided commitment if the family physician had some knowledge of insanity or had made precautionary clinical tests. Because a patient is out of his head is no sign that he is crazy. The condition must be more or less persistent, an alteration of the character of the patient, and primary. Certainly, no physician should pronounce a person insane without a physical and clinical examination to determine the presence of internal disease.

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DISCUSSION OF PAPERS BY DRS. NEU AND HOFFMAN

Dr. A. E. Sterne, Indianapolis: These two papers cover a territory of tremendous width, breadth and length, and have a fourth dimension—excellence. They both have the merit of calling our attention in a general way to two very

important subjects which it would be utterly impossible to discuss in the time limit afforded us. I can do no more than just touch upon what they have said.

In regard to Dr. Neu's paper, the sentiments he has expressed have our hearty commendation and support. He has not said a thing in his paper to which we could have the slightest possible objection. He has emphasized some general principles, some faults of the principles of bringing up children, particularly in this country. I should say, in short, that there are two classes of nervous children—children who have something the matter with them, and children who suffer from too much parents. Each child is a law unto itself; it must be studied individually. There can be no gainsaying the fact that the children, particularly in this country, are about as illy trained as one could reasonably expect children to be who are brought up with any kind of training at all. I do not mean that some children are not well trained; I do not mean that the children in some medical families are not excellently trained (Laughter), but as a whole the children in this country have liberties and privileges which they have no right to have. The parents as children had more liberties and privileges than they should have had, and they do not know any different. They do not know how to bring up children, and instead of having race suicide, as an eminent gentlemen has claimed this nation is undergoing, I should say that what we need is a little better quality and a little less quantity than we now possess. Dr. Neu has very well stated that we bring up our children in a great many ways with less regard than we do the animals upon our farms, and that the breeders know more about bringing up animals than we do about bringing up children. We should recognize the quality of heredity. There are very few conditions of heredity which cannot be controlled by education, environment and training. I do not know that there are any. If we expect to take the child of a savage and place it in a white family and train it with the white family, and then expect it to grow up as a white child, properly trained, we are surpassing any reasonable expectation. But if we take that child, or take several boys and several girls, place them in the right surroundings, have them intermarry, take their children, raise them in civilized surroundings, let them intermarry, and so on through four or five generations, then we shall see results which we shall otherwise not see, and we cannot expect to see them.

Nervousness in children is due almost always —unless they are sick—to lack of self-control, and that can be taught the child and must be taught the child.

In regard to Dr. Hoffman's paper, also generally speaking, there can be no doubt but that a great many persons are stigmatized as insane that are not actually insane. The conditions that Dr. Hoffman speaks of—he says mental affection —none of these conditions is a true insanity, none of them he has mentioned. The patient who is non non-compos mentis from delirium is not insane. No person is insane who is suffering the mental derangement of a group of illnesses. Insane people are sick people; they should be treated as sick people; they should be examined just as carefully as any sort of sick persons; and in a great many cases we will find the mental derangement the result of internal illness. The trouble is we have no opportunity to study these conditions. When a person becomes unmanageable in the home or general hospital, we have no place in this whole state to send that patient, except the insane asylum, or some private institution. We have no detention hospital or observation hospital. What are you going to do? They cannot be treated at home. The neighbors object to the racket. But careful examination reveals the fact that these unfortunates have an organic illness somewhere. They are not insane, literally and scientifically speaking. They are non-compos mentis, but they are not necessarily insane, but until this state, until the communities through the state, make some provision for these people, we will continue to have the same conditions to deal with.

Our laws are valid, but our examinations in sanity inquests are not examinations at all. It is a perfunctory sort of legal thing we go through. It asks, "Does this individual require treatment in a hospital for the insane?" "Yes, he does," and he is sent there, and it is up to the people in the insane asylum to decide what is the matter with that person. That is all we can do unless you want to send him to jail, which is infinitely worse than the stigma of a sanity inquest.

Dr. G. W. McCaskey, Fort Wayne: I have listened with a great deal of interest to these papers and the discussion of Dr. Sterne. I do not know that there is very much I can add or care to add to what has been said. There is certainly very little I wish to criticize.

So far as nervousness in a child is concerned, ——————— it seems to me uttered a truth when he said that the first requisite of a good man is to be a good animal, and the more perfect we can make the physical development, the general nutrition of the child, the more complete and more perfect and more healthful will be the condition of the nervous system. It is during this formative period of the child's life that the impression is placed not only upon the nervous system but on everything that goes to make up the individual which is to take his or her place as a citizen. And it is the care we give to the children, to the evolution of the nervous system, that will make or unmake the future man or woman. The nervous system of the child I would say, then, is the dual product of heredity

and environment, and heredity we can neither make or unmake—we must take it as we find it. We may hope to modify the things that will make up the heredity of the future, but we cannot make or unmake heredity which already exists.

This brings me to the second paper, in which reference is made to the mental affection or condition found in connection with certain internal diseases. Of course we all recognize the difference between the delirium of typhoid fever and chronic insanity. After all, is not the difference very largely one of duration, and of a physical condition associated with a mental state? We do have a delirium in Bright's disease, and it may be hard to distinguish this from insanity. A great many people go through life on the border line of insanity. You have read magazine articles about the relationship of genius to insanity, but there are people who are not geniuses who are on the border line of insanity. These individuals, while they go along all right under ordinary conditions of life, if they are subjected to something like Bright's disease, we can see them very easily pass over the line which separates them from the insane class. I think many a man becomes insane because he has Bright's disease, or on account of some heart condition. There is a close relation between insanity and heart disease, but in my opinion there cannot be any other relationship which exists between the circulation and the ——— of the nervous system.

Dr. F. F. Hutchins, Indianapolis: It is rather a coincidence that these two papers should give us the history of nearly the whole subject of nervousness in children and mental diseases in internal medicine. The tremendous importance of nervousness in the child has been emphasized here several times. It has been emphasized time and again that "As the twig is bent the tree inclines," that the first few years of childhood determine the future of that individual. Nervousness in childhood means neurasthenia and other forms of nervousness which follow in later years and give us the mental conditions which the doctor refers to in internal diseases. Why is it that if there is any relation between internal diseases and the mind, why do we not always have mental disorder with that disease?

There are two kinds of children—neurotic and non-neurotic, and we need them both. You take the non-neurotic child, and he comes up and goes along through life, he is the cart horse that carries the load; he is the man that faces the cannon if necessary. But we need the others, too. Where are we going to get men with dreams; where are we going to get artists and literary men to lead us from the common to the beautiful things of life? We get them from neurotic children. The history of every man who has arrived at distinction in the realms of art or science shows this, especially Charles Darwin, who refers to his night terrors and dreams and the troubles he had. We must have these people, but it is a combination of the two—common sense and imagination—that makes the broad, all-round man of whom we are all so proud.

The trouble is these neurotic children are not trained right; they are not handled right. You cannot put it to their physical condition; it is not that; it is hereditary instability which makes a man more susceptible to outside things than his brother; it is the power to reach out and take notice of what is going on outside. We ought to take these children and study them. But how many are capable of doing it? It is up to us to make a thorough and scientific study of them, and I think the physician is the man to make this study.

We have two great varieties of neurotic children—one who is extremely sensitive, whose feelings are easily hurt, and the other who reserves himself, who does not want the world to know his affliction, who keeps it to himself and shrinks from the outside world.

Dr. F. B. Wynn, Indianapolis: These papers have ability, and the subject is so interesting and the discussion so instructive that I cannot refrain from endorsing what has been said and add my mite to the support of the good things that have been said.

How very true is this claim of the necessity of properly directing the life and habit formation of children. The one point I wish to try to emphasize in the few remarks I make is that these things which we call in the life of the child and adult, habit, really has a physical basis in the individual. I believe firmly that that is true. In medicine, for example, the child or young adult from whatever cause has a convulsive seizure. The doctor is exceedingly anxious that that convulsion should not be repeated. It occurs a second time—a dozen times, and you say this child has now the epileptic habit. It may be toxic in its origin—frequently is, or it might have been from heart loss of function originally, but now the nervous form is taken on, and you get the explosion you call an epileptic seizure. How often you see a child unconsciously begin to twist its face, or shrug its shoulders, or do curious things of that kind, and if it is permitted to continue it becomes second nature to that individual. That does not mean that the muscles of the face are the site of the trouble; it means that centrally something has taken place, that there has occurred a physical change in the central nervous system. And so I might multiply illustrations to show that what we call our temperamental peculiarities have a mental origin, and a child which begins to lie and who is not corrected in that habit goes on lying and continues to be a lying man. Or take another child who, uncontrolled, lets passion get the upper

hand and flies all to flinders. How is that child when he reaches adult life? He is the same way. And it is the same with hysterical persons. You trace them back to early life and you will find it due to lack of proper training in that individual, and I wish to claim now, as I have done again and again, that my belief is that this has a physical basis, and hence the necessity that we as physicians recognize that it is necessary to do something while the child is growing, when the central nervous system can be molded. It means that we will study the child and treat it as it should be treated; it means that we will go into the public schools and preach this gospel. I believe by education we can do for the race a great work in preventing nervousness and mental disorders. This field has not even been touched, and I believe it is a greater field than the prevention of infectious diseases.

Dr. A. W. Brayton, Indianapolis: The views expressed by Dr. Wynn enforce the argument of Dr. Neu. However, I do not think any amount of habit forming can overcome the influence of the germ plasm. Teachers, schools, home influence, tradition and religion may modify, but cannot correct in any single generation the influence of heredity. There is much good achieved by the formation of good habits. Indeed, Sir Thomas Galton insisted that if the really great men of the world had been made changelings in their cradles, it would have made little difference in the outcome of their greatness. I ask you to consider the book of Davenport, "Heredity in Relation to Eugenics." The author is director of the Department of Experimental Evolution and secretary of the Eugenics Section of the American Breeders' Association. The book is worth buying, reading and studying. Its purpose is to show all those influences that improve the inborn qualities of a race by inducing young people to make a more reasonable selection of marriage mates; that is, to fall in love intelligently, stopping to consider if the contemplated union will result in healthful and mentally well-endowed offspring. This is a condition that will come by education rather than by law, although certain legal restrictions should prevent the propagation of the mentally unfit and incompetent.

That was a beautiful view that Dr. Hutchins expressed, that we need the so-called neurotics, those of spiritual temperament and mental as well as physicial sensitiveness, who may be trials to their parents and teachers during childhood—those who see visions and have dreams. Among these are found the idealists, the poets and seers, the inventors and storytellers; those who live in the spirit as well as in the flesh and body. Those children should not be overgoverned or coerced; they should not be the slaves of educational theories, or forced into habit systems and made to lead a life against their nature and spirit. Their education should be by indirection and their spontaneity preserved.

The burden of Davenport's work is the inheritance of family traits as expressed in nearly a hundred various conditions and diseases, with suggested restrictions as to marriage in each case.

Those who over emphasize the value of acquired characters and of habit formation may well consider the influence of a few single in a growing nation in a new country, or the study of genealogy as shown in the history of a few leading American families, such as the Jonathan Edwards' group in New England, the First Families of Virginia and the Aristocracy of Kentucky. These three families dominated the colonial and revolutionary history of our country, and their influence has maintained to the present in American politics, history and literature.

Consider the influence of the germ plasm of one woman, Elizabeth Tuttle, descended from English royalty. But her unit characters were not lost in the melting pot and still appear in numerous New England strains unaffected by repeated unions with other germ plasm by marriage. She was a woman of great physical beauty and strength; tall and commanding, of strong will and mental grasp and vigor akin to rapacity. But she was so unbalanced in moral and sexual sense and feeling that she became a lascivious adulteress and was divorced for this and other immoralities after having a son and four daughters. There was no blending, no teaching, no religious influence, no habit formation that could change at once the evil trait that was far back in her blood. One of her sisters murdered a son, and a brother murdered his own sister. But out out of her loins came the notable Edwards family, including Jonathan Edwards, one of the greatest intellects of the world, President of Princeton, a theologian to rank with Thomas Aquinas. Of this male strain has come a glorious galaxy of educators, students and moral leaders and authors of note whose books are read and studied every day. Inheriting the defects of her character through the male line came the germ plasm both good and evil which appeared in Pierpont Edwards, Aaron Burr—the lack of control of sex-impulse being reproduced with her hearty imagination and other talents.

The progeny of her four daughters also carried the remarkable qualities of this woman, as shown in Presidents Grant and Cleveland and scores of others. Any emigration law that would have kept Elizabeth Tuttle in England would have prevented this nation from attaining the position in law, in culture and politics that it now holds.

The same with the Richard Lee family of Virginia, and the Irish girl, Elizabeth Patton and her husband, John Preston, who brought the high grade germ plasm to this country which produced the Kentucky aristocracy—men brave and gallant, and women fascinating, accomplished and

beautiful. These two great stocks glow with statesmen and military men as the New England family was adorned with scholars and inventors.

In these family histories we see the power of a persistent germ plasm creating the best blood of America, rather than the emphasis of habit formation. It is the blood that tells. Three families, six persons, had the initial germ plasm that enabled their offspring to marry into the best families and make this nation what it is, and in the six only the bad strain appears—mostly repressed in the progeny of Elizabeth Tuttle.

Of families of defectives and criminals we have the notorious "Jukes," including "Margaret, the Mother of Criminals," who has cost New York over two millions, and in Indiana and Ohio we have the Ishmaelites, whose history was worked out by the Reverend Oscar C. McCulloch, of the Charity Organization Society of our city twenty years ago—diseased gypsies and beggars, thieves and prostitutes, intermarrying and rouging from Columbus, Ohio, to Decatur, Ill., paupers since 1840. The Ben Ishmael's tribe came from Maryland and Kentucky, and intermarried with a score of families from Tennessee and the Carolinas. These families had bad blood and no redeeming germ plasm.

It is well for us to remember the pit out of which we were digged, and to be thankful if we have good strains of germ plasm in our wives and in our ancestors. To such stocks we may add what we can by the ordinary means of culture, legal restrictions, school restraints, religious restraints, home restraints—the formation of good habits by all these social and institutional means. But back of all must be the blood, the germ plasm, the right determiners in man and wife passing on to the children. All else is of secondary importance, but still is of great importance.

Dr. Neu's paper, in my judgment, gave a fair apportionment of all the factors which go to the making of a good and healthy progeny—stating the problems and conditions which the modern science of heredity and eugenics is considering.

Dr. C. S. Woods (Indianapolis): I am impelled to say a word about these most excellent papers, and also to state that I have enjoyed the discussion very much, indeed, because it has, it seems to me, touched on so many points of view which those who are interested in nervousness in children, feeblemindedness and insanity, must meet in the study of the great question.

I want to refer to a remark made by Dr. Wynn, which I believe has great truth in it. It is a fact, as you know, that the microscopic diseases are really being reduced in every instance, and that the mortality rate is slightly, but perhaps not relatively reduced. Particularly is this true of typhoid fever. The physician formerly made much of his living out of typhoid fever cases, but this is not true to-day. But the diseases which in a more intimate way are related to parentage, are not being prevented, but as a matter of fact are increasing. Feeblemindedness is, I think, appallingly common, and these are the cases particularly and directly traceable to heredity. Dr. Brayton has referred to the notorious Jukes family. Now comes the Collicott family (the name is fictitious), detailed in a little book by Dr. Goddard. This family had its origin in a feebleminded girl who met M. Collicott, senior, and by whom she became impregnated and gave birth to a son, M. Collicott, junior. There were 480 descendants of this unfortunate episode, and 146 of them were feebleminded; only forty-three were normal; eighty-two of them died in infancy; many of them were sexually immoral, addicted to alcohol, some of them epileptics and criminals.

The thing we must keep in mind, gentlemen, is this: Whatever we may say about feeblemindedness, about the inherent, subtle difficulties and problems of eugenics, the fact remains that these diseases which are related to the parent, either mother or father or both, ought in some way to be prevented, and I think may be prevented by serious study of such questions as we have had this afternoon. They may try colonization and sterilization and other methods, but the fact remains that if the normal virility of the race is not conserved we will have a whole category of degenerates, because we have in us the germ plasm about which Dr. Brayton has been talking. There is a positive side and a negative. I do not know which side we ought to develop, but I want to say that the germ plasm is something in us which is to be developed by education, by proper training in the home. That is the thing that I think Dr. Wynn is getting at, and if we do not take care of the child when he comes to us with his germ plasm, of course there is no escape then from the propagation of defective children.

Dr. A. E. Sterne, Indianapolis: I feel more and more impressed with this great principle. We are too prone to mix up what we designate as "the mind," with something spiritual, with "the soul," as it is called. The mind is the expression of the sum total of all of the functions of the brain, as well as any other activity, and I would add thereto of the functions of the body outside of the brain. The mind is the expression of a physical thing. You cannot get away from that. An individual has just as much as the integrity of his brain permits, correlated with the integrity of his body. This has nothing whatever to do with that thing we call the soul. The characteristics of our progenitors are handed down to us more on physical lines than spiritual lines, and a defective child has just so much mind as the remaining integrity of that child's brain permits it to have, and Dr. Wynn is absolutely right when he calls attention to childish habits that can by their repetition be augmented into a stable thing. We must seriously consider these

things. If we are going to have a perfect race mentally—and with that mentality comes a grasp of the spiritual—we must go on principles which will bring us a race of people which are physically as near perfect as possible.

Dr. C. F. Neu (closing): I do not think it will benefit us very much to discuss the question whether or not a physical change does take place. It is the condition we have to deal with.

That brings us to the question that Dr. Wynn referred to—to bring the education to the home. But that is not sufficient; it requires education at school and all the time, and we cannot be satisfied with educating the child, but the parents as well. This State Association should by some means or in some way have articles, educational articles, published from time to time. There should be a committee appointed by the State Association to look after this, and these papers so published should be along the line Dr. Woods referred to, showing the influence of heredity. Dr. Goddard has it down in black and white, he gives the family history of the feebleminded children that come under his control. If we had something like that in Indiana, to educate the people on the dangers of the propagation of defective children, it would help us.

Dr. G. E. Hoffman (closing): All I wish to point out is the recognition of the dependence of certain mental disorders on physical conditions amenable to treatment, and the relations existing between many of the physical diseases and insanity.

INFECTIOUS POINTS IN DISEASES OF THE NOSE, THROAT AND EARS *

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Any part of our anatomy that contains bacteria can, under favorable conditions, become a focus of infection to the general system. The infection may be so little as to produce no general symptoms; it may be more active and cause some disturbance of the general nervous system; or it may be so virulent as to cause a rise of temperature. The general symptoms depend upon the ability of the phagocytes to combat the microbes. This condition marks the difference between acute and chronic diseases. Practically all diseases are caused by some infection. The many general symptoms resulting therefrom are Nature's reserve forces with which she combats bacteria that are thrown into the system. I shall not, however, discuss the ordinary acute infectious diseases that are commonly known as contagious, such as diphtheria, scarlet fever, erysipelas, etc.

How infections enter the general system is still a mooted question. Some affirm that the entrance is by way of the blood-channel; others think the entrance is by way of abrasions in the mucous membranes or skin, and still others hold to the alimentary canal route.

Much of our knowledge of the diseases that have been caused by the absorption of infectious material is empyrical. That is, it has been discovered that the removal of pus tubes stopped the pelvic pain and fever, and restored the woman to health. The removal of gall-stones stopped the pain and digestive troubles and cured the man. The enucleation of the tonsils was followed with the cessation of the rheumatism. The extraction of a tooth was followed with a cessation of tic douloureux and earache. After draining the antrum of Highmore the infra-orbital neuralgia, the headache, malaise and fever stopped.

Bacteriologists have found the same microbes in the infected point of the mucosa, in the blood, in the urine and serous fluids. All branches of medicine and surgery have made discoveries along this line, and verified them with the microscope. It has been learned from the experience of previous patients having the same pathological conditions that the removal of the infected point was followed with a cessation of the symptoms.

A catarrhal condition, or an ulceration of the mucosa of the pharynx, nose or ear, may be a point of infection. The mucous membranes of the throat and nose become diseased more frequently than the mucosa in any other part of the system. This is because of the glandular structure of the throat and the constant exposure of the nasopharynx to air that is impregnated with microbes and dust.

The tendency to catarrhal diseases is an inheritance; but as in any other inheritance, the predisposition can be largely overcome with proper living and proper surroundings. Diseases of the nose, throat and ears generally have their beginnings in childhood. The child with an inherited tendency, breathing impure air and living in unfavorable surroundings, will very early have the pharyngeal glands diseased. On the other hand, the child living in luxury and overfed will also have diseased tonsils and adenoids. The first is underfed, lacks in vitality and has a weakened phagocytic action. The second is overfed, suffers with auto-intoxication, and has also a weakened phagocytic action. The conditions of both might have been avoided with proper living and surroundings.

It has been said that the faucial tonsils and the glands in the upper and lower pharynx stand

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* Read before the Indiana State Medical Association, at Indianapolis, Oct. 10, 1912.

as guards to prevent the entrance of bacteria into the general system. This is perhaps the most plausible function of tonsillar tissue; but even this has never been proved. Only when the glands of the pharynx fail to destroy the bacteria in the air, food or infected points, do the adjoining lymphatic glands of the neck become involved. The constitutional symptoms, at this stage, compel the patient to seek relief.

Children that are born with enlarged glands of the neck, or have diseased tonsillar tissue are generally tubercular or syphilitic. It is rare to find an infant with a pathological mucosa of the nasopharynx. Malformed jaws, malpositions of the maxillaries, and irregular teeth are all acquired after birth and are generally the cause, indirectly, of nasopharyngeal infectious points. Hence as a preventative of future infections children should have medical and surgical treatment and not wait for adult life. This is a plea for school examination of our children. As has been said, "if the child is father to the man, let us have a healthful child." Only in this way, can we hope to perpetuate and improve our people.

Unfortunately there are still a few physicians who do not recognize the infectiousness of diseased tonsils. The large tonsils may act as an obstruction in the pharynx, but are not always the most infectious. The small tonsils, or those that have been decapitated, and have been seared over with connective tissue, burying the infection at the tonsillar base, will often produce a chain of disagreeable constitutional symptoms.

The chief function of the nose is to prepare the air for the lungs. A certain amount of serum is given off by the nasal mucosa that should be evaporated by the current of air as it passes through the nose. If there is an interference with nasal breathing, as in the case of hypertrophied tonsils, adenoids, polypi or any obstructions to the nares, the natural secretions remain in the nose. These become infected from the bacteria in the air, converting them into a corrosive discharge, commonly called, "catarrh." Nasal obstructions will also interfere with the natural drainage from the sinuses. The infection will then extend from the nares to the sinuses, causing sinusitis. A nasal infection may mean much or little, depending on the infection and its source.

A very large percentage of all ear diseases were caused by the extension of an infection from the pharynx, up the eustachian tubes to the ears. The seat of the trouble lies in diseased tonsils, adenoids or some interference with proper drainage of the postnasal region, or the pharynx. Infection in the middle ear may remain serous or become purulent, depending on the bacteria. A salpingitis of the eustachian tube is a point of infection, just as much as a salpingitis of the fallopian tube. An otorrhea as an infective point depends very largely on the bacteria in the air. It is common to find in the pus of a discharging ear a large variety of microbes; but the streptococci and staphylococci are the most common. Many more of these cases are tubercular than was formerly supposed. In the examination of seventeen consecutive cases of chronic otorrhea I found four where the pus contained tubercular bacilli.

It is surprising how the system can adjust itself to an old open abscess. Recently I saw a man with a discharge of the right ear of sixty years' duration. He has had a leukocytosis of that ear for sixty years. The phagocytes have combated the bacteria in that diseased ear for sixty years. The dynamic force that his system exerted in one day to combat the infection, multiplied by 21,915, the number of days in sixty years, would total the whole extravagance of life. The lost energy, added to his last hour of life, no doubt would increase his longevity a number of years. The principle of energy or animal life, and the elements to sustain the same, should teach us that an infective point in any part of the system will shorten a patient's life.

Thus far reference has been made, principally, to chronic pathological foci. Acute attacks might be styled exacerbations of the same infection. The same infection exists in both the acute and chronic state of a disease; but in the acute form more microbes are thrown into the blood-channel. To illustrate: practically all tonsils in the adults are diseased, and contain some bacteria, yet there may be no increase of the temperature or any special constitutional symptoms. The bacteria in the chronic form of tonsil infection are destroyed by the phagocytes at the focal point, but when the bacteria become too numerous the phagocytes cannot control the situation and all the symptoms that form the acute state are ushered in. If from any cause the vitality of the general system becomes lowered and the phagocytic action becomes less, the microbes in the infected point increase rapidly and enter the general system. Other combating forces or symptoms are now brought on, which marks the transition from the chronic to the acute form of disease. Symptoms are the outward manifestations of Nature's reserve forces. The prognosis of an infected point always depends on the resources that Nature has to combat the bacteria.

In the ordinary chronic tonsil, but acutely inflamed, the patient will complain of pain in the tonsillar region and often shooting up the tubes to the middle ear. He will have a rise of temperature, increased pulse and respiration, a dry skin, headache, constipation and general malaise. Such acute attacks may follow late banquets, or any overindulgence. Attacks of coryza and influenza are not caused by drafts or cold, as is popularly supposed. The same microbes, during the attack of coryza, were in the pharynx previous to the attack of coryza. The phagocytes kept the bacteria under control, but when the system was weakened from overindulgence the phagocytic action was lowered, so that the bacteria entered more freely into the general system, causing the influenza.

It has been demonstrated that many cases of acute muscular and articular rheumatism can be relieved by properly treating the pharynx. Many cases of chronic rheumatic arthritis would not yield to treatment until the tonsils were enucleated. Dieulafoy says, "at least one-third of the cases of rheumatism begin with a sore throat, accompanied by fever." Abrahams says, "the tonsils are the port of entrance of the rheumatic poison." It is now quite generally believed that rheumatism is a microbic disease; but as yet no one has been able to find its infection. The streptococci, the staphylococci and many other bacteria that have been found in diseased tonsils, and at the same time in the joints and blood of the patient, have not been proven to be the etiology of rheumatism. No one has thus far been able to show the relation between a tonsillitis and rheumatism. But it has been demonstrated by physicians generally that the treatment for both is about the same. The physician who treats the throat at the same time he treats the rheumatism or endocarditis has the best results.

The treatment for the relief of infectious points in the nose, throat and ears is surgery. In fact, for permanent relief it is the only remedy worth considering. Local applications are palliative, and in acute attacks may allay the local symptoms and give much comfort to the patient. But after the abatement of all acute symptoms, the nose should be cleared of all obstructions to proper breathing and proper drainage.

DISCUSSION

Dr. Walter J. Leach, New Albany: I was much impressed by that part of this splendid paper which deals with and emphasizes general systemic causes of catarrhal diseases, which leads us up to a correct plan of prevention and cure of them. It seems that we are a long time getting away from the idea that colds and catarrh are local diseases; and a long time realizing that proper hygiene is the rational prevention and cure.

I think but little doubt remains that there is a close relation between rheumatism and a variety of tonsillitis. In my experience the rheumatic tonsil is one that manifests but little swelling in proportion to the amount of fever and pain at the onset. Also, patients who are diathetically rheumatic have more pain in their joints and muscles with any form of tonsillitis than those who are not.

I think it is good practice to remove all chronically inflamed tonsils in rheumatic patients. The operation should be tonsillectomy, and that in a hospital. The seat of the infection is usually in the upper two-thirds of the tonsil, and the removal of that part will usually give relief; however, this is not perfect surgery. I am not so enthusiastic about removing tonsils as I used to be, especially in children who have adenoids. The removal of the adenoids will often be followed by recovery of the tonsils where they are only mildly infected.

The treatment of the non-suppurative acute and subacute catarrhs is usually accomplished by freeing the nose and pharynx of all obstructions, such as adenoids, spurs, hypertrophied tonsils, etc. At least free drainage and ventilation must be permanently secured. The treatment of suppurating sinuses and ears is a subject too extensive for my allotted time.

Dr. James McCall, Terre Haute: How about those cases which come in with sore throats that are not associated with articular rheumatism or arthritis, but in which the rheumatism is confined to the throat itself, and where the objective symptoms are only a mild congestion of the pharynx, with no apparent enlargement or diseased condition of the tonsil itself? Therefore, if rheumatism and tonsillar diseases are associated, why in such cases as just cited is there not an enlargement and diseased condition of the tonsil itself in some of these cases? Is it not likely that often times the deeper lymphatics in the throat which drain into the tonsillar fossae are the site of the inflammation? However, to substantiate the fact that such throats are rheumatic they almost invariably respond to antirheumatic treatment and seldom to any other kind.

Dr. Albert E. Bulson, Jr., Fort Wayne: No physician can doubt the importance of getting rid of infectious areas in the nose and throat if he will note the improvement which takes place in the patient's general condition after such attention. Patients who are absorbing toxic material from the products of inflammation undergoing putrefactive and degenerative changes show the effects of toxemia or sepsis, and are never quite well until the infective areas have

been eliminated by appropriate treatment. To neglect to open up and properly treat diseased accessory sinuses, or to remove obstructions in the nose which prevent proper drainage and ventilation is to neglect to give the patient all that is due him in an effort to make him well.

Every observing physician knows that tonsils may be a point of infection and that it is not necessary to have immensely hypertrophied tonsils to produce toxic symptoms. The intimate relationship between tonsils and rheumatism is well established by clinical observation, and the proper removal of tonsils usually, though not invariably, brings about most gratifying results in improving the general health of the patient. Personally I have never seen the slightest ill-effects from a properly done enucleation of the tonsils, but I have seen many bad results from the mutilating partial removal operations which seldom accomplish the desired results. I do not believe in the indiscriminate enucleation of tonsils, but if there is any indication that they are the cause of trouble, I can see no contra-indication, so far as the tonsils themselves are concerned, for removal.

DR. J. W. IDDINGS, Lowell: I believe there can be no dispute as to the faucial tonsil being a portal of entry for infection.

I have come to have a firm belief that a large percentage if not all cases of acute articular rheumatism have their origin from infection in the glandular tissue of the throat, and the tonsil alone is undoubtedly the most offending organ in most of these cases.

All of us must have seen patients with recurring attacks of articular rheumatism, especially in children, which subside after the removal of the tonsils.

Billings, I believe, has shown that the tonsil often contains the focus of infection in acute nephritis and articular rheumatism, and, contrary to our usual custom, advises the enucleation during the course of the disease and reports a marked improvement as well as shortening of disease.

As to the removal of the tonsil, if there is any indication for such a procedure I can see no excuse for anything short of a tonsillectomy.

DR. LOUIS D. BROSE, Evansville: Early in my medical career and while serving as an intern under Dr. J. Solis-Cohen in the German Hospital, Philadelphia, I was taught the connection between tonsillitis and rheumatism, and the value of tincture of guiac in its treatment. This was before the use of salicylates. I have known acute articular rheumatism to follow in a number of instances on an attack of acute tonsillitis, and believe the connection between the two a direct one.

DR. JOHN F. BARNHILL, Indianapolis: I feel assured of the connection of diseased tonsils or infected sinuses to general infected states commonly called rheumatism, for the relationship is frequently evident. I do not believe, however, that many such complications, possibly none, can be called true rheumatism. I believe, with many recent writers on the subject, that where the general affection can be clearly traced to a diseased tonsil, or a suppurating accessory sinus, that the general involvement is one of infection, and not rheumatism at all. I agree with the belief of many at present that the term rheumatism is often used carelessly and without full knowledge of its significance in the given case. That rheumatism is often some form of infection is becoming common belief among investigators of the subject who are now finding that the symptoms called rheumatism are often tubercular, gonorrheal, or the result of some other form of infection. The term rheumatism, like neuralgia, is becoming narrower as our knowledge of the cause of disease is increased. I agree with Dr. McCall, that small, imbedded, but diseased tonsils are quite as frequently the point of infection as are the large projecting tonsils. I do not believe, however, as I understand Dr. McCall does, that normal tonsils are ever the seat of such infection.

DR. FREDERICK V. OVERMAN, Indianapolis: The question has arisen in my mind whether or not the tonsils were the only points of infection in the throat. I should like to report a case of a young woman, who, about one year ago had a tonsillectomy—complete enucleation of both tonsils. Previous to this she had never had an attack of rheumatism. In the past months I have seen her four times, coming to me with a sore pharynx and nasal pharynx. From three to five days following each attack of pharyngitis she has had an acute rheumatism. Immediately after the clearing up of the throat trouble the rheumatism has disappeared. It is perhaps unfair to form an opinion from one case, but after seeing this case the question has arisen whether or not the tonsils are the only points of infection in the throat through which we may contract rheumatism.

DR. L. C. CLINE, Indianapolis: I have tried for twenty years to find the relation of the tonsils to rheumatism. I have observed many cases of rheumatism following tonsillitis and vice versa, and I am not sure but that a great proportion of the sore throats are rheumatic in origin, due to lack of elimination, faulty metabolism and lithemia, and in many cases the tonsillitis is the result instead of the cause.

The accumulation of uric acid in the system may result in muscular, articular, nerve sheath irritation, headaches, sore throats, etc. I think internal medicine is often overlooked in these cases. It is very necessary to establish elimination and clear the alimentary tract, stimulating the liver and kidneys to their normal functions.

In regard to the matter of removing tonsils, I believe that the pendulum has swung too far.

in every instance of removing the entire tonsil whether it is diseased or not. Many of the ordinary cases require only the removal of the diseased structures. In this I wish to be distinctly understood that there are many tonsils that require complete removal in order to get the best results, but there are many others that do just as well if only the diseased portion is removed, and such part left as does not interfere with respiration and phonation, to produce phagocytes which it is claimed destroy the infection with which they come in contact. By this method many of the capital operations that are now being performed on cases that can ill afford it can be eliminated and greater danger from the radical operation removed.

By the proper use of instruments the majority of the ordinary tonsils can be hulled out almost completely, as is practiced by many now. When a small portion of the tonsil is left and there are lacunae that extent into the base, they should be cauterized or slit out so as to give complete drainage. In the ordinary cases I seldom use a general anesthetic for reasons that I have formerly stated. This is a mere matter of practice and perfecting methods.

I have been greatly impressed by the recent article written by Dr. John McKenzie of Baltimore in which he discusses the abuses now generally practiced in tonsil surgery. Dr. Spohn's paper was well presented and shows he is alive to the investigation of his subject.

Dr. Kent K. Wheelock, Fort Wayne: I have not heard this paper and only wish to speak on a phase of the discussion. We may do much harm by indiscriminate and commercial operating on the tonsil. But it is better to operate ninety and nine innocent tonsils than overlook one tonsil pregnant with danger to the patient. I am sorry that Dr. Cline takes the view of the tonsil operation which he has expressed, and I am now prepared to believe that he may be too conservative. Coming down on the train a physician related to me the history of a case which he had sent to Dr. Cline, and it was clearly one of obstructed breathing from adenoids, with reflex asthma and general lowered vitality from imperfect oxygenation and defective assimilation, all due to adenoids and tonsils. Dr. Cline had refused to operate and the patient still has all his symptoms and is physically and mentally subnormal, and likewise has asthma. What is worse, the parents refuse to have anything done because of the advice they had received. There is a tradition handed down from the dawn of creation that God created man and said that it was good. So many, both lay and professional, have assumed that there is and always has been a directing hand in creation and therefore man is perfect when he comes from the Creator's hand. If man is perfect when he is created, why does God put tonsils and adenoids in only about 15 per cent. of his creatures? Surely He is neglecting the other 85 in whom he does not put adenoids and tonsils. Then if the adenoid and tonsil are essential to physiological perfection, why do they become obliterated at a comparatively early period?

Dr. Heitger: I wish to add one important factor on the toxic complications following tonsillitis, that is an acute nephritis, or Bright's disease. A number of writers have called attention to this complication in years passed. More recently Dr. Loeb of St. Louis cited four cases which should have been recognized easily on account of two of the patients being relatives of physicians, and the other two patients being interns in hospitals.

The so-called rheumatism is in many cases a manifestation of intoxication, and this intoxication may become so severe as to localize itself in certain organs of the body. We have this in all cases of acute nephritis. Following all cases of tonsillitis a number of urine examinations should be made in order to discover early any beginning change in the kidneys.

Dr. Spohn (Closing): In answer to Dr. Cline's statement that the tonsils should be removed only in part, it seems to me this is dangerous advice to a medical body at this stage of medical advancement. If the tonsil needs removing at all it should be removed in toto. If a portion of a tonsil is diseased the whole tonsil is diseased. The same is true of the lymphatic glands in the neck. No one would attempt to remove a portion of a tubercular gland in the neck unless he removed the whole gland. It would be just as reasonable to remove a portion of the tubercular gland of the neck as to remove a portion of the tonsils. I do not believe that all tonsils should be removed, and I also think that many are removed unnecessarily; but I have never seen a case that has been injured by the proper enucleation of the tonsils. The doctor who quoted McKinzie's paper on "The Massacre of The Tonsil," should not accept the statements contained in the paper unless he has had much experience in the enucleation of the tonsils, then he can judge for himself whether tonsils are diseased and should be removed. Much injury has been done to the advancement of laryngology and rhinology by the publication of McKinzie's paper. McKinzie, himself, is able to judge whether a tonsil should be removed or not. Many of our old rhinologists, or those who have been practicing during the time when the tonsil was only decapitated, contend that the tonsil should not be removed in toto. As has been stated, cases are not injured by the removal of the whole tonsil if it is properly done. Those cases that complain of sore throat after the enucleation of the tonsils

are mouth breathers and should be compelled to breathe through the nose. Dr. Overman reported a case where the tonsils were removed and yet the patient has had repeated attacks of inflamed sore throat followed by rheumatism. The chances are that this patient is a mouth breather and that she has pharyngeal tonsils. If these cases are compelled to breathe through the nose at all times the trouble can be avoided. The infection causing the sore throat can be taken through the pharyngeal tonsils into the system. Many tonsils seem to be thoroughly enucleated even when the superior tonsillar region still holds the capsule and a portion of the tonsils. Cases of this kind will still have sore throats and rheumatism. There are other points that should be answered, but I cannot in the time allotted. I thank all the members for this free and splendid discussion.

TWO MEDICAL CURIOSITIES

G. W. H. Kemper, M.D.
MUNCIE, IND.

In July, 1911, while looking at some old books in a second-hand store, my attention was attracted to an old volume entitled "Eastman's Treatise." I purchased the volume and now have it in my possession. The size of the book is 7x5 inches, and it is bound in pasteboard. It contains 182 pages, and the mechanical work is excellent. I was struck with the imprint of the title-page, especially when I saw it was printed at Connersville in 1845. So far as I can determine it is the first medical book printed in the state of Indiana. A reproduction of the title-page will, I am sure, be of interest to the reader.

Soon after finding the book I wrote to my friend, Dr. S. N. Hamilton, of Connersville, and requested him, if possible, to learn something of the history of Dr. Eastman. I received the following information from him:

"There is only one person living in Fayette County to-day who remembers Dr. Buell Eastman; Louise Nelson, a maiden lady; she was born here in 1823, where she has always lived except a few years in the country just after the Civil War. Her mind is clear and memory good and she has the history of Connersville and Fayette County for the last seventy-five years. She has always been an active woman and takes an interest in public affairs, and she is very interesting in conversation to one who likes to go back over the past.

"When I called her mind to Dr. Eastman, she spoke as follows: 'Yes, I remember him well. In the Spring of 1844 I made an extended visit to friends in Kentucky and on my return home Dr. Buell Eastman and family were living in Connersville. He had moved from Cincinnati, his former home. He was a large, handsome man, and had two beautiful daughters. I do not remember his wife so well. He belonged to my church, and when we had no preacher and he was not too busy in the practice of medicine, he often occupied the pulpit.

"The next year after he moved here (1845) he wrote a medical book and had it published. I never saw the book; only heard him and others speak of it. He lived in Connersville till the Fall of 1846, and then moved back to Cincinnati, his former home. After he moved away, I never saw him again or any of his family and lost all trace of them.'

"This is the story of Dr. Buell Eastman and his book as told by Louise Nelson.

"I now remember of hearing my mother speak of Dr. Eastman when I was a very small boy, but he had moved from Connersville several years before, for I was born in 1845.

PRACTICAL TREATISE

ON DISEASES

PECULIAR TO WOMEN AND GIRLS:

TO WHICH IS ADDED

AN ECLECTIC SYSTEM OF MIDWIFERY.

ALSO,

THE TREATMENT OF THE DISEASES OF CHILDREN, AND THE REMEDIES USED IN THE CURE OF DISEASES:

PARTICULARLY ADAPTED TO THE USE OF

HEADS OF FAMILIES AND MIDWIVES.

BY BUELL EASTMAN, M. D.
PRESIDENT OF THE ENDERMIC SOCIETY OF MEDICINE, AND SENIOR MEMBER OF THE MEDICAL SOCIETY OF CINCINNATI.

Second Edition.

CONNERSVILLE:
1845.

"In all probability this was the first medical book published in the state of Indiana."

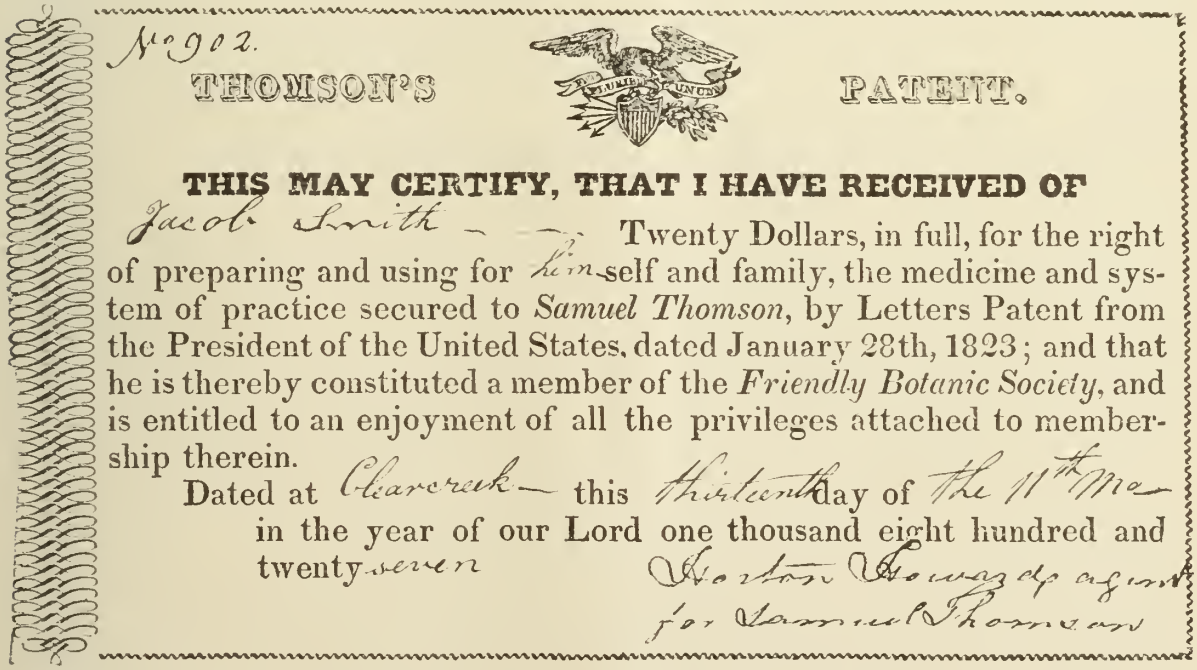
On October 21, 1912, I visited Connersville with a view of identifying the publishing house, but was unable to do so.

My second curio is a relic of the days of Thomsonianism — days of patent rights, the spread eagle and *E. Pluribus Unum*. The document is printed on cheap paper.

The document was presented to me some months ago by Rev. E. F. Hasty, of Warsaw, Ind., a retired minister. He gave me the following history of the paper: "I found it among my grandfather's papers—Jacob Smith. He did not at all pretend to be a doctor, but in an early day the neighbors depended much upon him and grandmother in time of sickness; perhaps they were as good as many of the quack doctors."

Dr. Samuel Thomson was born in Olmstead, Cheshire County, New Hampshire, Feb. 9, 1767. At an early age he began to experiment with lobelia. Later he added to his stock of drugs and practice, emetics, sweating, capsicum, composition powder and hot drops. He patented his system in 1823, and sold rights in several states while he practiced on horseback, riding through New Hampshire, Maine, Vermont and Massachusetts. Finally he located in Beverly, Mass. He died on Oct. 4, 1843, in the faith of his remedies and used them as long as they could be taken.

One of the early memories of my childhood was a Dr. Lewis, who practiced this system at Clarksburg, Decatur County. It was a passing joke that he encountered a patient with a dislocated shoulder, gave him an emetic of lobelia, and then reduced the dislocation. This was before the days of anesthetics, and, while the treatment seemed ridiculous to the non-professional, it must have been a success in relaxing. The story reminds us of Dupuytren, the great French surgeon, who was called to see a noble lady with a shoulder dislocation. He made several unsuccessful attempts to reduce the dislocation, but failed, owing to the firm muscular resistance. Finally, he said: "Madam, I have repeatedly asked you to tell me how the accident occurred, and you have lied to me. Why did you not tell me you was drunk when you fell?" "Who said I was drunk?" she indignantly replied, and in her chagrin forgot her mishap, and the surgeon restored the bone in its socket.



No 902.

THOMSON'S PATENT.

THIS MAY CERTIFY, THAT I HAVE RECEIVED OF Jacob Smith — — Twenty Dollars, in full, for the right of preparing and using for him-self and family, the medicine and system of practice secured to *Samuel Thomson*, by Letters Patent from the President of the United States, dated January 28th, 1823; and that he is thereby constituted a member of the *Friendly Botanic Society*, and is entitled to an enjoyment of all the privileges attached to membership therein.

Dated at Clarcreek — this thirteenth day of the 11th Mo in the year of our Lord one thousand eight hundred and twenty-seven

Horton Howard agent for Samuel Thomson

EARLY OPERATION FOR CLEFT PALATE

The proper time to operate for cleft palate is as soon after birth as possible. Nothing is gained by delay except the consequences of faulty nutrition. The plasticity of the new-born tissues, their capacity for repair, the trifling hemorrhage, the slight risk to life, the possibility of obtaining a broad, well-vascularized flap before the teeth have begun to encroach upon the mucous membrane combine to make early infancy an opportune time for repairing this defect. — W. F. Campbell, *American Medicine*.

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EDITORIALS

IN appreciation of the cordial cooperation and encouragement given THE JOURNAL by its readers and advertisers, we desire to present the compliments of the season, and wish for each and all happiness and prosperity for the coming year.

THE VALUE OF HEXAMETHYLENAMIN AND ALLIED COMPOUNDS AS PROVED BY EXPERIMENTATION

While for the past few years the value of hexamethylenamin, particularly as a urinary antiseptic, has been largely accepted by the profession as established, yet it has remained for Burnam, of Baltimore, to prove definitely by experiments its exact worth. The study was undertaken to determine the permeability of infected kidneys to hexamethylenamin because of a small series of unilateral kidney infections which failed to yield results from large doses of hexamethylenamin. In the beginning the current view regarding the excretion of hexamethylenamin administered by the mouth, in the bile, urine, pancreatic, synovial and cerebrospinal fluids in bactericidal quantities was given credence. This view, however, was soon refuted by an extensive review of the literature, as well as by personal experimental results. Heretofore the efficiency of this drug has been held to be due to its decomposition into formaldehyd.

In order to prove its true efficiency, it has seemed necessary by the author to determine quantitatively the amount of hexamethylenamin excreted in the urine after giving known quantities by the mouth; to determine quantitatively the amount of free formaldehyd present; to determine the bactericidal power of hexamethylenamin; to determine the bactericidal power of formaldehyd; to determine the strongest solutions of hexamethylenamin and formaldehyd which can be tolerated by the kidneys and other urinary organs; and, lastly, to compare the chemical and clinical findings.

It was found difficult to determine the amounts of the substances in the fluids for want of suitable chemical methods for such estimation. Likewise the qualitative procedures were unsatisfactory because the reaction was identical for hexamethylenamin and formaldehyd. Hehner's test, at once the most delicate qualitative test as well as the most popular, consists of adding five or six drops of milk to a few c.c. of the fluid to be tested. This is made to lie over a reagent composed of one drop of a 3 per cent. ferric chlorid solution to 100 c.c. of 99 per cent. sulphuric acid. The presence of formaldehyd or hexamethylenamin is shown by the slow formation at the line of juncture of a deep amethyst ring. It is necessary for this test to distill both the urine and the bile. Likewise the test is not practical for the purpose, because it does not differentiate between formaldehyd and hexamethylenamin, and because of its extreme delicacy. Formaldehyd clearly showed in solution of from 1 to 1,000,000 and hexamethylenamin in solution of 1 to 500,000, a proportion of 1 c.c. of formaldehyd to 1,000 liters of water.

The author succeeded in formulating a very delicate test reacting to free formaldehyd but not to hexamethylenamin. It consists in adding to the suspected fluid three drops of a .5 per cent. aqueous solution of phenylhydrazin hydrochlorid and then three drops of a 5 per cent. aqueous solution of sodium nitro-prussid, and then an excess of saturated aqueous solution of sodium hydroxid. Both the solution to be tested and the sodium hydroxid should be made a little warmer than body temperature. The presence of formaldehyd in solutions of 1 to 20,000 or stronger is indicated by an intense blue color which gradually changes to green and a few minutes later to brown. In solutions of less than 1 to 20,000 the first color is the intense green which passes off into brown. The test is delicate down to 1 to 150,000 or less. Should hexamethylenamin alone be suspected the solution can be acidulated with sulphuric acid, heated to boiling, cooled off and tested for formaldehyd into which the hexamethylenamin will have been broken down. Striking results in the urine, bile, sputum, the saliva and the cerebro-spinal fluid have been yielded by this test, and with results decidedly contradictory to the generally accepted beliefs.

Regarding the toxicity of hexamethylenamin, it has been proven practically non-toxic in the rabbit. The author has given hypodermically 100 grains at a dose without the slightest evidence of poisoning in an animal weighing two pounds. The equivalent of this dose in a human being weighing 150 pounds would be about 18 ounces. There is, however, a difference between the human

being and the rabbit in that in the rabbit no decomposition into formaldehyd takes place, the drug being excreted as hexamethylenamin. But in the human being hematuria and vesical irritation result from the liberation of formaldehyd gas in the urine at the level of the kidney.

To determine the bactericidal powers of hexamethylenamin and formaldehyd, solutions of varying strength of each drug in sterile water were made and inoculated with bacteria to the point of slight clouding of the fluid. The inoculated tubes were then incubated at body temperature in periods varying from a few minutes to a week. The *B. coli,* the *B. typhosus,* the *B. pyocyaneus,* the *Streptococcus* and the *Staphylococcus aureus* were the organisms employed. Hexamethylenamin obtained by adding a drop of ammonia to each solution to free it of formaldehyd proved to have no bactericidal power; the organisms all living in from 5 per cent. to 10 per cent. solutions without any deterioration.

On the contrary, formaldehyd proved very bactericidal, a solution of 1 to 100 destroying all organisms in twenty minutes, while a 1 to 1.000 solution destroyed all of them within twenty-four hours. An interesting difference in toleration toward formaldehyd was noted between the different bacteria, the most resistant being the *Staphylococcus aureus* and the least resistant the typhoid bacillus. A 1 to 5,000 solution of formaldehyd destroyed the typhoid bacillus and the *Streptococcus* within twenty-four hours, the *Bacillus pyocyaneus* within forty-eight hours, and the colon bacillus in four days, while the *Staphylococcus aureus* was still alive at the end of a week. A 1 to 2,000 solution of formaldehyd, however, destroys the *Staphylococcus aureus* completely in forty-eight hours. Solutions of formaldehyd of a strength of 1 to 20,000 had little or no effect on any of the organisms except the typhoid bacillus and the streptococcus, and these were not destroyed at the end of four days, but by reinoculation shown to be somewhat diminished in vitality. A 1 to 50,000 solution had apparently no effect either in destroying the organisms or inhibiting their growth.

As to the toxic effects of formaldehyd, it is shown that dilutions of 1 per cent. and less are irritant to the skin, but not in much weaker solutions. Formaldehyd poisoning produces violent gastro-intestinal symptoms and in serious cases coma, which may last several days. In the fatal cases death results from gradual cardio-respiratory paralysis. The author knows of no case in the human being of poisoning resulting from the liberation of formaldehyd in the tissues from hexamethylenamin. He has used locally solutions of formaldehyd varying in strength from 1 to 250, to 1 to 7,500 without any toxic symptoms.

To test the tolerance of the urinary organs to formaldehyd, a solution was found which would be well borne by the bladder and then injected through a renal catheter into the kidney pelvis. The tolerance, of course, varied in different individuals, the strength of solutions used being 1 to 3,750, to 1 to 12,500. Clinically the formaldehyd irrigations for bladder and kidney infections have proved very beneficial, and are especially so in cystitis associated with ammoniacal decomposition of the urine such as occurs with enlarged prostate or tumor of the bladder. The gall-bladder tolerates formaldehyd readily in solutions of 1 to 3,750, and in infected incisions and sinuses a 2½ per cent. solution can be used. It is interesting to note that in these tests hexamethylenamin could be used in the bladder and kidney in 50 per cent. strength solutions without any result, and apparently with no effect on the infection.

The question in this discussion here becomes patent, namely, how much formaldehyd is produced by the administration of hexamethylenamin by the mouth. The author feels that he has not yet sufficiently worked out the question, but can roughly say that in some patients it is possible to secure solutions of from 1 to 5,000 and stronger, but his important finding was that in customary doses of from 5 to 10 grains, given three times a day, *not more than two patients out of ten showed any decomposition of the drug into formaldehyd at all.* This was tested out both on cases of urinary infection and normal individuals, as well as on a number of patients convalescent from operations. If a patient showed abundant formaldehyd after a 10-grain dose it was found that a 2- or 3-grain dose often sufficed to show the break-down. Again, while not more than one-tenth of those examined showed free formaldehyd after the smaller doses, at least 60 per cent. showed it when the dosage was increased from 20 to 30 grains repeated from four to six hours, and in a few instances where the formaldehyd was not present after 30 grain dosage, 100 grains were given at a single dose without causing a decomposition of the hexamethylenamin. So that exceptionally there occurs an individual who does not break down hexamethylenamin into formaldehyd.

Careful ureteral catheterization experiments showed decomposition to be at the level of the kidney, and the author believes it to be due to some specific activity of the renal epithelium. Clinical observations on cases of urinary infec-

tion wherein the test for free formaldehyd was made bear out the conclusions that unless the hexamethylenamin does definitely break up into formaldehyd the therapeutic effect is *nil*.

Occasionally the average dose of 7½ grains of hexamethylenamin repeated two or three times per day causes irritation, and this was found to be good evidence of the liberation of formaldehyd. The clinical toleration of the drug likewise serves as a check for its administration as well as testing the urine for the amount of free formaldehyd. The absence of the latter by chemical test should indicate the necessity of increasing the dosage, and indeed, it is safe to push the dose until the free formaldehyd does appear. The proper treatment is to give just enough to be under the amount necessary to cause bladder irritation. In such amounts improvement rapidly follows in most cases, but it is possible to keep up such dosage for months without serious impairment either of the general health or the kidneys.

Various proprietary hexamethylenamin compounds such as formin, cystamin and hexamin are identical with hexamethylenamin, and together with helmetol, which is a methylencitrate of hexamethylenamin, their excretion is identical with that of hexamethylenamin, i. e., in some cases free formaldehyd is liberated and in others there is none.

The concurrent employment of Hehner's test with that of the author's showed by the former slight traces of formaldehyd in gall-bladder patients getting not less than 60 grains a day of hexamethylenamin, but no traces of formaldehyd by the author's test. Practically the same results were obtained in the sputum and saliva. The cerebrospinal fluid yielded like results.

In conclusion it may be said that even after rather large doses of hexamethylenamin, percentages less than 1 to 150,000 of the drug appear in the bile, sputum, saliva and cerebrospinal fluid, and so far it is impossible to state whether this is formaldehyd or hexamethylenamin because of its dilution. Clinically, however, no therapeutic value attaches because of the enormous dilutions of the drug. It seems fair to state, then, that the use of hexamethylenamin for the curing or improvement of, or a prophylactic against infections of the bile passages, respiratory passages, and cerebrospinal system is fallacious and without possible results. In the urine it has been definitely shown that only those who show free formaldehyd have been improved by the drug. The phenylhydrazin nitro-prussid test of the author is simple and offers an easy method of determining the dose of hexamethylenamin to be used as well as those cases wherein results should not be expected.

Even with its limitations, however, the experiments and clinical experience of Burnam prove that hexamethylenamin when properly given is of immense value in more than half the cases of urinary infection, and at the present time is superior to any other drug in common use.

INDICANURIA

Both the clinical significance and the exact etiologic factors of indicanuria have been the subject of considerable discussion for many years past, and even now the best authorities are not satisfied that either is a closed question. A most interesting contribution to the subject, based on a study of 148 patients showing indican transitorially or more persistently, is that of Morgan's in the December issue of *The American Journal of the Medical Sciences*.

While indican or the indoxyl sulphate of potassium is non-toxic, the indol from which it is formed is slightly so, Herter claiming that small doses may cause frontal headache, mental irritability, insomnia, etc. Wooley and Newburg, after injecting indol in animals, found the adrenals showing hyperplastic and apparently hypertrophic changes of the medulla, with an increase in the activity of the chromatin material proportionate to the number of injections. Slight interstitial changes in the kidneys were also noted. Hence it is possible that excessive indol absorption for a prolonged time may, by stimulating increased adrenal activity, be a factor in the production of arteriosclerosis and chronic nephritis. Since the amounts of indican derivatives such as indol, skatol, phenol and cresols are more or less indeterminable quantities, the amount of putrefaction taking place must be measured largely by the amount of indican excreted in the urine.

The test employed by Morgan is as follows: 3 drops of a 1 per cent. solution of potassium chlorate plus hydrochloric acid are added to the urine and shaken up with 5 c.c. of chloroform. The blue color of the chloroform is arbitrarily graded as to intensity from +1.00, or sky blue, to +6.00, the highest grade encountered, and a very black blue.

In the bacterial digestion or putrefaction of proteids, indol results because the bacteria take up the work of proteid splitting where the enzymes leave off. In this process the lower ileum

affords the chief laboratory for the formation of this end product, and the colon the principal absorptive seat. There is reason to believe that in some cases there is relative immunity to absorption by the colonic mucous membrane, or some other protective mechanism in various viscera, as the liver. On the other hand, solution of continuity of colonic mucosa may result in considerable indicanuria with very slight putrefaction. Hence, while not all cases of putrefaction yield indican, yet the author believes excessive indican in the urine always indicates abnormal function, and that the cause should be isolated and eliminated.

In his series the cases were about equally divided as to sex — 73 females and 75 males. Ordinarily the indican was incidental to treatment for other gastro-intestinal conditions, in some accidental or transitory, some recurrent, while in others more or less constant, and a definite part of the clinical picture, but still associated with other pathologic processes, and in several it was present without evident cause. The latter he classes as true indicanuria, idiopathic or perhaps pure intestinal auto-intoxication.

From previous study Morgan established the fact that the presence of indican in the urine was much more common from January 1 to July 1, for which he accounts by the lack of mental and bodily rest during that period as compared to the vacation period. The season of the year apparently plays little or no part in the production of the phenomenon. Further analysis of the cases showed no particular etiologic factor common to even a considerable number of the patients. Nearly all of the commoner forms of gastro-intestinal diseases were represented, 46 showing hyperacidity, 25 subacidity or anacidity, and 42 normal figures. Baar found ulcer with hyperacidity always accompanied by excessive indican, and ascribes such importance to the association of hyperacidity and indicanuria as to form a diagnostic sign. He declares that excluding ulcer of the stomach and duodenum, hyperacidity with indicanuria indicates an extra-gastric lesion, as appendicitis or cholecystitis. These views do not tally with the observations of the author, since not more than one-third of his ulcer cases showed excessive indican. On the other hand, in a number of instances in which indican and hyperacidity were present, the same cause, the loss of nerve tone, prevailed, with no suspicion of extragastric inflammatory trouble.

Uncomplicated constipation cannot be said to be a causal factor, and only a small number of the author's patients seeking relief for chronic constipation showed excessive indican. Several of his patients with the most persistent and marked indicanuria had normal daily bowel movements.

Obstipation from obstruction of the transverse colon or both can result in profound indicanuria, this diminishing as the obstruction is lower down, and usually disappearing in affections of the lower part of the gut.

Other conditions showing increase of indican are peritonitis, typhoid, cholera, ozena, caries and other pus collections, particularly those whose pus has become putrid. Baar observed indican in the urine for a week after operations in which the intestinal wall was cut or the organs roughly handled.

The most frequent cause of putrefaction resulting in indicanuria, according to Morgan, is a combination of an excessive diet and a run-down condition with loss of nerve tone.

The typical symptom-complex consists of vertigo of varying degree, dull headache, languor, drowsiness, depression, lack of ambition, loss of concentration, insomnia, non-restful sleep, fatigue, irritability, borborygmus, muscle pain and cramps in legs, cold extremities and fetid breath. Occasionally there was partial loss of coordination. None of these symptoms were constant, but some were always present, save a very few cases who had no apparent symptoms, yet a marked indicanuria. A very striking case of the last-named sort is related in detail. The predominant symptom and the one occurring with greatest regularity was gas formation in the bowel, indicating the underlying putrefaction. Early fatigue was among the troublesome symptoms in about one-fifth of the cases, although nearly all of the patients volunteered information concerning tiring easily.

Almost half the cases had headache in some degree or form, either neuralgic in character or a dull frontal type. Often the pain was found to be worse in the morning. About the same number were troubled with dizziness, varying from a transitory light-headedness to sharp attacks with such vertigo as to cause staggering. Strangely enough, the severity of the headache and dizziness, and the other symptoms as well, seemed to bear no distinct relationship to the degree of indican excreted, but was perhaps rather dependent on the tolerance of the patient for the poison.

In many insomnia was noted, or the patient might go to sleep readily enough, but would experience little or no rest therefrom and rise with a morning tire.

Quite characteristic is the pain in the legs, and perhaps other muscles, unaccompanied by soreness to the touch, and varying from a cramp-like condition of the muscles of the calf to a steady rheumatic ache.

The skin was often found pale and dry and frequently accompanied by skin eruptions. Nearly all had an anemia more or less marked, and averaging about 72 per cent. hg.

While Bram claimed that indicanuria and albuminuria are seldom coincident, yet Daremberg found that 95 per cent. of his patients with indicanuria also had an albuminuria. The author's experience more nearly tallies with the latter, albumin being exceedingly common, usually in faint traces, associated with hyalin casts, indicating a chronic interstitial change, the result of long continued excretion of poisons.

Treatment should be by measures directed against the formation of toxins and toward the elimination of those already formed. If possible, the primary source of putrefaction should be eliminated and any gastro-intestinal disorders, either causative or incidental, should be corrected. Not infrequently the excessive production of indican ceased with the removal of mental strain, while other cases most obstinately resisted prolonged careful treatment.

In general, good hygiene, proper diet, exercise, irrigation and occasional medication are indicated. Purgatives not only do not cause a diminution of the indican, but may even be followed by increased excretion. Irrigations are a useful adjunct to direct treatment for the indicanuria, and various solutions have been used, such as salt, soda, argyrol and icthyol, the last-named often effective in the event of failure by the others.

The chief dietary change should be a reduction of proteid. Buttermilk has been tried out pretty thoroughly by the author without any notable effect, nor have the lactic acid bacilli afforded any better results. No one factor has seemed of greater importance than the restoration of nerve tone, as by a vacation spent in the mountains. As a general proposition, the longer the duration of the indicanuria the greater the time of its persistence under treatment.

Some of Dr. Morgan's observations are slightly at variance with the ideas championed by other observers, as for instance the contra-indications for purgatives such as calomel, and the importance of mental rest. The profession will welcome more light on a subject which has been up to the present time a more or less debatable one, and it is hoped that further observations along this line will be soon forthcoming.

EDITORIAL NOTES

Anything in the line of physicians' supplies or equipment may be obtained from advertisers in *The Journal of the Indiana State Medical Association*. Patronize these advertisers for it means a continuance of their advertising patronage, and the latter means a larger and better Journal for you.

DUES for 1913 are payable this month.

DO NOT let THE JOURNAL or your medical defense privileges lapse by failure to pay your state association dues promptly.

JUDGING from the reports which come from the various county medical societies in Indiana there is room for a number of good secretaries, and we hope that the December elections will result in a change in some of the counties where secretaries are but little more than figureheads.

THE January number of THE JOURNAL will be devoted to a review of the year's advances in medicine and surgery. There will be special articles covering medicine, surgery, pathology and bacteriology, public health, otology, rhinology and laryngology, and ophthalmology. There will also be the usual original contributions and other matter which go to make up an interesting number.

THE Association is defending four members in malpractice suits. Not one of the members carried any malpractice insurance, and it can be readily understood how membership in the Association is appreciated at a time when lawyers' fees and court costs have to be paid. Furthermore, the moral effect of having the Association defending one of its members is not to be looked on lightly.

YOU may be the next doctor to suffer from the effects of a malpractice suit, no matter how skilful or how careful you may be. Remember that the Association does not defend you, be your cause ever so worthy, if your dues were delinquent at the time services for which suit is entered were rendered. Therefore do not delay in the payment of your dues, and remember that this is the month when payment should be made.

IN this number we print the index for the year. If you really want to know what your secretary has been doing, look at the record of printed

proceedings for your society. It will not do for any secretary to say that he has sent in a report and it has not been published. The Journal has asked and even begged for reports from county secretaries, and no county or district society report has been received which did not find a place in The Journal if the report covered any recent meetings. We again urge the secretaries of county societies to furnish us regularly and promptly with typewritten reports of meetings.

And now we have the spinologists, a new breed of fakers who prey on the sick and afflicted, as evidenced by the card of B. E. Irwin, spinologist. As the name suggests, these pseudo-doctors pretend to "adjust the spine," and they claim that abnormal physical development of the spine is responsible for everything from consumption to baby's colic. But it is anything to beat the medical law, and the spinologists, the chiropractitioners and a lot of other fake doctors succeed in doing it. But we wonder what the osteopaths are saying about this infringement on their domain by the spinologists who do not apply for a license.

County secretaries are reminded that they should remit collected dues promptly. Some complaint has been made by members to the effect that dues that have been paid to county secretaries have not been remitted promptly to the state association secretary, and in consequence members have been considered delinquent when as a matter of fact the delinquency was due to failure on the part of the county secretary to remit collections promptly. Now that we have the medical defense feature the matter becomes of considerable importance, and failure to remit dues might result in legal complications in case that services on which malpractice suit is based were rendered during the interval of the member's delinquency.

For several months we have received regularly the notices concerning meetings of the Titus County (Texas) Medical Society, and judging from the announcements that have been received, the secretary is certainly a "live wire." The announcements are not printed on a plain postal card, but are printed in the form of an illustrated letter, which contains all of the necessary information, and in addition some very pertinent reasons as to why every doctor who receives the letter should be on hand at the appointed time to take part in the deliberations of the society of which he is a member. Even the envelope carries on its face illustrations and an announcement of the date of the society meeting and what is in store in the way of a program. We regret that there are not more secretaries with activity and enterprise, for it is a well-recognized fact, often stated in these columns, that the most successful societies, medical or otherwise, are those having hustling secretaries.

From press reports we learn that quite a large number of women physicians are interesting themselves in the question of woman suffrage. This is entirely proper, and in keeping with justice and right, for there is absolutely no reason why women who are self-supporting should not have a voice in governmental affairs. We are not prepared to believe, however, that the adoption of woman suffrage would be an unmixed blessing, even though we can see the justice of the claims put forth by the self-supporting women. But whenever a majority of the women desire suffrage we are distinctly in favor of giving it to them, though we are not in favor of doing so until it can be clearly demonstrated that the women themselves want to vote. At present but a very small minority of the women, though a very active and aggressive one, is agitating the subject of woman suffrage, and until those who are so actively interested in securing woman suffrage can show that a majority of the women are with them, it seems to us that the question of granting the request should be held in abeyance.

It is fortunate that some of our wealthy men are beginning to appreciate the beneficent work that can be accomplished by the medical profession if funds are furnished for research work. Very frequently we hear of benefactions to aid in the study of diseased processes, and recently the Johns Hopkins Hospital has received a gift of $200,000 from J. B. Brady, of New York City, to be used in founding a urological institute as a separate unit to the hospital. In addition to the primary gift, Mr. Brady will; during his life, pay to the trustees the sum of $15,000 yearly for the maintenance of the institute and will make ample provisions for its continued support in his will. The *Medical Record* comments on the fact that this will be the first institute of the sort in this country, though London and Paris already have such hospitals, and Berlin is about to construct one. The Johns Hopkins Hospital plans to erect a six-story building, with special laboratories for research, and accommodations for both

public and private patients. The gift is made because of Mr. Brady's interest in the hospital following his recent stay there as a patient.

IT is unfortunate that so few of our hospitals keep anything like a systematic record of their cases. Dr. James T. Gwathmey, in the *Jour. A. M. A.* of Nov. 13, 1912, calls attention to this fact in his paper concerning American anesthesia statistics when he says that out of 1,400 letters addressed to all the public hospitals with not less than ten beds in the United States, Canada, Cuba and the Canal Zone, only 201 responded, and out of that number 102 stated that they could furnish no statistics. Very few of even the larger hospitals in the cities responded, and in New York City only two hospitals had any statistics that were available. What was really desired was information concerning the number of anesthesias given, the kind of anesthesia, whether preceded by an analgesic or not, and what the results were as to mortality, complications, etc. It is possible for every hospital to maintain a record of that kind with but very little effort, and in the interest of scientific advancement hospital managements should keep such statistics. In fact, it is not a difficult matter for any hospital to keep a complete record of all cases that come into the hospital, and have them so tabulated that they can be referred to readily for a great deal of interesting information which when compiled will be available in arriving at conclusions that will prove valuable in furthering medical science. It is unfortunate that at present a very large number of hospitals keep no records that are of the slightest value whatever. This is not in keeping with good hospital management.

OF what use is the present medical law of Indiana when quacks and medical impostors of every grade and color can practice medicine in Indiana without let or hindrance?

A doctor practicing and advertising under the name of the "United Specialists" has been prosecuted for practicing medicine without a license. It was clearly proved that the defendant was guilty, so far as the intent and purposes of the law are concerned, but on a technicality the defendant was acquitted.

The so-called chiropractors are doing an immense amount of harm through their efforts to cure diseases by their peculiar system, "by adjusting the vertebrae that are subluxated."

Some of the opticians are treating diseased conditions of the eyes, not only by prescribing lenses, but by prescribing medicines as well.

In short, medical pretenders of every description are really practicing medicine without the formality of having complied with Indiana's law governing this matter, and yet a highly reputable, thoroughly educated and wholly competent member of the regular medical profession who desires to practice medicine in the state of Indiana is compelled to comply with a lot of requirements before he is permitted legally to practice medicine in the state, and if he fails in one iota to meet the requirements, he is thrown down with a dull, sickening thud. Surely there is reason for disappointment concerning the effectiveness and general benefit derived from the Medical Practice Act, and if, as has so frequently been stated, our medical laws are for the protection of the public, we think there is room for great improvement.

IN his presidential address delivered before the American Hospital Association meeting held in Detroit in September, Dr. Henry M. Hurd makes a plea for better managed and better supported hospitals. Economy demands one hospital well supported rather than a number of struggling institutions, and the impression that free treatment in a hospital is a natural right available to every citizen should be corrected. The hospital, in order to best serve its intended purpose, must have sufficient funds to keep it abreast of the times, for the advances in medical science for the past twenty-five years have necessitated added expenses in the way of hospital equipment. Dr. Hurd advises greater uniformity in the plans and construction of hospitals in order to increase the efficiency of the institution and lessen the first cost. Cheaper hospital sites somewhat removed from the limits in large cities would greatly lessen the initial cost of the hospital as well as provide space for extensions at low cost when required.

Dr. Hurd might well have emphasized the importance of having our hospitals conducted on the highest ethical planes and freed from the commercialism which taints so many of the institutions and makes of hospitals, what has been stated by one well-known medical man, "a curse rather than a blessing to the community." The hospital proposition offers many problems to be solved, and like all other things that are subject to abuse the question will eventually right itself and in time the hospital will meet its proper function in providing everything that is required to conscien-

tiously and efficiently supply the needs of the sick and injured. It will also take its proper place among those agencies which further scientific advancement.

During the meeting of secretaries of state medical societies, held in Chicago in October, inquiry was made as to the number of medical journals, and particularly those owned or controlled by medical societies, that carry the advertisements of proprietary remedies that have not been accepted by the Council on Pharmacy and Chemistry of the A. M. A. for inclusion with New and Nonofficial Remedies. In response to the request for information, the secretary of the Council has checked up the October issues of the several state medical journals and tabulated the information for the use of editors and others who may be interested in knowing just how far the almighty dollar goes in influencing the ethical and business policies of journals owned and published by the profession. It is a sad commentary on the principles of editors and managers to note that out of a list of twenty-six journals owned by state medical associations there were only four which do not advertise proprietary preparations that have not passed the Council. The Journal of The Indiana State Medical Association is one of the number, and it may be added that since its establishment four years ago it has never carried a line of objectionable advertising, and we have been informed that it is the only journal owned and published by the profession which at all times has lived up to its professed reputation of being clean from cover to cover.

What has been done and is being done by The Journal of The Indiana State Medical Association can and should be done by the journal of every other state medical association, and it is up to the rank and file of the medical profession in the several states to demand that their journals shall purge their advertising departments of all objectionable matter or go out of business. The Council on Pharmacy and Chemistry deserves and should have the encouragement and the support of every journal that is owned by a state medical association, and one of the best ways to support the Council is to refuse to accept the advertising of any products that have not received the approval of the Council. Of course it means a loss of dollars and cents to turn down some of the good advertising contracts which come from firms that are advertising nostrums and proprietaries that are not recognized by the Council, but it always costs something to be good, though it pays in the long run. Editors and managers of state journals also should take into consideration the fact that if the valuable work that is being done by the Council is to be of any permanent benefit it must have the support of the medical profession. It does not speak well for us to pay out good money to determine just how badly we are deceived and swindled and then when we learn the facts continue to aid in the deception and swindling of others, if not actually to become victims ourselves.

According to the *California State Journal of Medicine*, the Christian scientists, the members of the League for Medical Freedom and the sympathizers with everything that is opposed to regular medicine, will be in control of California after the next session of the Legislature adjourns. Under the leadership of this delectable bunch of "knockers," it is quite possible that California's present vaccination law will be repealed, as it is probable that small-pox will be made only a reportable disease and not quarantinable. It is also possible that a reciprocity amendment will be passed that will practically mean no safeguard to the public, and that thereafter any quack anywhere may go to California and get a license.

The *California State Journal of Medicine* further comments as follows: "The crazy, unreasoning, fanatical opposition to anything that partakes of the nature of public health control, and which had its origin some four years ago, has grown tremendously. It looks very much as though the people would have to take their dose of medicine before they can recover from the disease of unreason. It will not be a pleasant dose to take, but it may be the quickest way to get over the disease. A really good epidemic of small-pox and a considerable increase of rabies and poliomyelitis, with no attempt at control or quarantine, might help somewhat. If we, as a profession, undertake to oppose this movement actively, we at once make it worse, for those whose interests are against public health measures immediately cry out that the 'doctors' trust' has been hurt and is trying to get something."

We commend the advice given to the effect that the quickest and best way to prove the value of public health regulation is to let the opposition now in control have full and uninterrupted reign. The medical profession has always been criticized and maligned in certain quarters for efforts to protect the public health from communicable and preventable diseases and to safeguard the interests of the people in all matters pertaining to health. There is no better way to demonstrate

the unselfish attitude of the medical profession in this fight for better things in public health service than to let the public suffer the penalties of misguided effort and the results following the dangerous advice of those who have been fighting medical progress. The worst feature of the whole business is that the innocent have to suffer along with the guilty. But if the California people meet with the punishment so richly deserved for their foolishness in falling into the hands of their enemies, the lesson will not be without profit to California as well as to the entire country. In the meantime we can follow the advice given by the *California State Journal of Medicine* "to do something to preserve our own self respect and our respect for our profession, by active work in our medical societies, by keeping them clean, free from petty graft and from all other things for which we might have cause to be ashamed, and by raising higher the standards required for admission. Make membership in a county medical society something for the thinking people in the community to look upon as a badge of desirability and respectability."

To Members of the Association:

On November 15 there was sent to the secretary of every county medical society a letter of instructions concerning the collecting of 1913 dues, together with the triplicate receiptbook to be used. If a new secretary has been elected for your society since that time, his predecessor is expected to turn over to him this letter and book.

Some of the rules for the county secretaries should be understood by the individual members so that they can cooperate in keeping the business affairs of the association running smoothly. Will you help your county secretary to live up to the following four rules?

1. Receive no dues without giving the triplicate receipt.

2. Mail this and your check the same day to Secretary Combs. Don't wait.

3. On the same day you receive the membership card from Secretary Combs, mail it to the member. Postage stamps are the best insurance against complaints, as Uncle Sam is prompt.

4. Send some notice of every meeting to The Journal, giving date, number or members present, essayist and title of paper, and note of business transacted, i. e., resolutions, motions, new members, etc.

These receiptbooks are the best plan yet adopted, but even that plan fails if it is not carried out. On the first of November the state secretary sent letters to about 300 physicians who were members in 1911 but had not paid this year. This brought in several new members, but the most surprising part of it was that several of the physicians getting these letters had really paid their dues early in the year, but the county secretary had not sent them in to the state association office. This could be obviated if a member would make a prompt investigation if he does not get his membership card from the state secretary within two weeks after paying his dues to the county secretary; therefore, if you do not have your membership card, if your journal stops its regular monthly visits to your desk, or if you fail to see your name in the list of members published in The Journal from month to month, you may know that you are not in good standing.

The membership cards for next year state that you are entitled to the benefits of the medical defense feature of the association from the date of issuing the card until Jan. 1, 1914, and if you value the protection, you should pay your dues before January 1 so that your protection will be continuous. A lapse of one day might be very costly to you, especially if you treated a case of fracture on that particular day and your services resulted in a malpractice suit. It may be that the defense feature was regarded as an insignificant affair at the early part of the year, but the fact that we are actually engaged at the present time in defending members against suits that have been filed, brings out the serious side of the question, as you do not know when your time will come next. If you are anxious about this matter, see to it personally that your county secretary forwards your dues as soon as you pay them.

Chas. N. Combs, Secretary.

DEATHS

Dr. Edgar D. Biddle, aged 56, died at his home in Patoka, November 9.

Dr. Almond A. Stuart, of Fortville, was shot and killed by an unknown assailant the night of November 7. Dr. Stuart was 62 years of age.

Dr. George E. Jones, of Evansville, who was a surgeon in the United States Navy during the Civil War, died December 2 at his winter home at St. Augustine, Fla.

Dr. John B. Lytle, of Shelbyville, died November 21 after an illness of several weeks. He had been a resident of Marion for twenty-nine years, owning a drug store at that place.

Dr. L. H. McCoy, an active practicing physician of Spencer County, died at his home at Lake, October 7, aged 61 years. He was a graduate of the Ohio Medical College, of the class of 1881.

Dr. George G. Allred, of Danville, died at the Methodist Episcopal Hospital, Indianapolis, November 26, following an operation for appendicitis. Dr. Allred was coroner of Hendricks County. He was born in 1882.

Dr. Henry Moore, 5602 E. Washington St., Indianapolis, fell dead in the state house, Indianapolis, December 2, following a stroke of apoplexy. Dr. Moore was dictating a letter to a stenographer when stricken, and death was instantaneous. Dr. Moore was 72 years old. He was the prime mover in the establishment of the State Tuberculosis Hospital at Rockville.

NEWS, NOTES AND COMMENTS

The Twenty-Seventh Special Annual Meeting of the St. Joseph County Medical Society was held at the Oliver Hotel, South Bend, November 20.

William A. Thompson, of Marion, a chiropractor, has been found guilty of practicing medicine and surgery without a license and fined $25 and costs.

Dr. Simon J. Young has disposed of his practice in Valparaiso and located in Indianapolis with an office in the Hume-Mansur Building. His practice will hereafter be limited to abdominal surgery and diseases of women.

The Indianapolis City Board of Health has recently adopted new rules governing the admission of patients to the City Hospital, which provide that all persons admitted to the hospital must make affidavit that they are residents of the city.

The Supreme Court has decided that it is a crime in Indiana to distribute from house to house samples of patent medicines which may be injurious to health, though the distributor may be ever so careful that none of the samples fall into the hands of children.

The Thirty-Ninth Semi-Annual meeting of the Northern Tri-State Medical Association will be held at Toledo, O., Jan. 14, 1913. A fine scientific program is being prepared, and the Toledo Academy of Medicine will royally entertain all visiting physicians.

Dr. J. N. Hurty has opened a course of Health Lectures in the Ann Arbor University, starting November 26. These lectures are given by Drs. Hektoen and Murphy, of Chicago; Dr. Westbrook, of Minneapolis; Dr. Jacobi, of New York; Dr. Means, of Columbus, and Dr. Hurty.

Drs. G. W. McCaskey, Miles F. Porter, B. P. Weaver and Miles F. Porter, Jr., announce that they have associated themselves for the practice of medicine and surgery with offices and laboratories fifth floor Physicians' Defense Building, corner of Wayne and Clinton streets, Fort Wayne.

The Twelfth Annual Conference of the Sanitary Officers of the State of New York was held in Fobes Hall, Education Building, Syracuse, Wednesday, Thursday and Friday, December 4, 5 and 6. Wednesday morning was taken up by a symposium on "The Control of Syphilis and Gonorrhea," and Dr. J. M. Hurty, Secretary of the Indiana State Board of Health, spoke on "What the State Can Do."

Three series of courses in Sanitary Sciences were started at Tulane University, New Orleans, this session. These courses are for medical, science and engineering students specializing in sanitation. The medical graduate in this course expects to become the health officer on boards of health; the science graduate becomes the expert on sanitary biology, and the engineering graduate will eventually design, build and care for structures for sanitary purposes.

Work has been begun on excavations for the new St. Francis Hospital at Beech Grove, southeast of Indianapolis. The building will cost approximately $200,000. In the spring the building will be built, and it is expected to have it completed before next fall. The building will be a three-story structure and will occupy part of a five-acre tract owned by the Sisters of St. Francis.

The structure will be U-shaped and will have a capacity of 100 patients. All modern hospital conveniences are incorporated in the plans for the institution.

Plans are now ready for a Physicians' Travel Study Tour, leaving New York July 3 for the most important capitals and health resorts on the European Continent: Paris, Munich, Carlsbad-Marienbad, Dresden, Berlin, Nauheim, Wiesbaden, Cologne, Brussels, The Hague, Amsterdam, etc., ending with the week of the International Congress on Hygiene and Demography in London, August 6-12, 1913. Physicians interested in such a trip may write for further and more detailed information to Dr. Richard Kovacs, 236 E. 69th Street, New York City.

A course of lectures is being given at the Pathological Department of the Central Indiana Hospital for the Insane, for the Indiana University School of Medicine, by Prof. A. E. Sterne and Prof. F. F. Hutchins. In connection therewith the Pathologist of the institution, Dr. Truman C. Terrell, will deliver a course of lectures on "Pathology and Neuropathology." The first of the lectures was given on October 1, and the course will extend through to March 18, one lecture being given each week (Tuesday). A psychiatric clinic is to be given by Prof. E. H. Lindley, of the University. The lectures are free to practitioners and students of medicine.

The Young Physicians' Club, of Indianapolis, was tendered a reception and dinner November 7 at the Polk Sanitary Milk Company's plant, and was addressed by Dr. Charles E. North, city sanitarian of New York and president of the New York Milk Committee. Dr. North dealt with the milk question in a practical way, and stated that the infant mortality of New York has been reduced from 140 in each 1,000 persons to 107 in 1,000. The farmers from whom the milk committee of New York procures its supply are paid on the basis of cleanliness. Preceding the reception which was held in the palm room in the Polk plant, the physicians were taken on a tour of inspection of the plant.

Since November 1 the following articles have been accepted for inclusion with New and Nonofficial Remedies:

Afridol, Farbenfabriken of Elberfeld Co.

Afridol Soap, Farbenfabriken of Elberfeld Co.

Cycloform, Farbenfabriken of Elberfeld Co.

Hexal, Riedel & Co.

Hexal Tablets, Riedel & Co.

Glycotauro, Hynson, Westcott & Co.

Glycotauro Capsules, 5 grs., Westcott & Co.

Glycotauro Pills, 1 gr., Westcott & Co.

Mercurial Ointment Improved, H. K. Mulford Company.

Capsules Mercurial Ointment Improved, H. K. Mulford Company.

Novatophan, Schering & Glatz.

Novatophan Tablets, Schering & Glatz.

SOCIETY PROCEEDINGS

ELEVENTH DISTRICT MEDICAL SOCIETY

The Eleventh District Medical Society met in regular session in the assembly room of the court house, Huntington, 11:30, October 17. After reading of minutes of previous meeting, the following officers were elected: President, Dr. Chas. H. Good, Huntington; secretary-treasurer, Dr. James L. Gilbert, Logansport. After election of officers and a short discussion of subjects pertaining to the policy of the society, the meeting was adjourned until 2 o'clock, and the visitors entertained at luncheon by the local society.

At 2 o'clock the society reconvened for the scientific session, when the following program was carried out:

Non-Obstructive Constipation, Dr. L. E. Jewett, Wabash; discussion, Dr. J. C. Fretz, Deedsville.

Gastric Dilatation in Children, Dr. C. C. Crampton, Delphi; discussion, Dr. R. E. Troutman, Logansport.

Practical Bacterin Therapy, Dr. J. Bradfield, Logansport; discussion, Dr. V. V. Cameron, Marion.

Operative Treatment of Fractures, Dr. G. G. Eckhart, Marion; discussion, Dr. Chas. Wright, Huntington.

The next regular meeting will be held May 23, 1913, at Delphi.

A banquet was served at 6 o'clock at the M. E. Church, after which the following toasts were given:

The Doctor for a Half Century, Dr. A. H. Shaffer, Huntington.

The Caloric Value of a Toast, Dr. W. A. Fankboner, Marion.

If My Gasoline Holds Out, Dr. P. B. Carter, Macy.

The Young Doctor, What Is He Good For? Dr. Chas. H. McCully, Logansport.

The Ladies, Dr. James Wilson, Wabash.

In the afternoon the ladies were entertained at the home of Mrs. B. H. B. Grayston; hostesses were Mesdames Grayston, Wright, Brodbeck and Krebs.

Adjourned. James L. Gilbert, Secretary.

FORT WAYNE MEDICAL SOCIETY

Meeting of October 1

Society met in regular session in Assembly Room with 23 members present.

Clinical cases. Dr. G. Van Sweringen made further report on the case in influenza reported a week ago.

Dr. McCaskey, in discussion said: "I thought the first day the report was made that this case might be a streptococcus infection. I have seen the same mani-

festations in infections of this nature. One case I now have in mind failed to grow a culture until a week had elapsed."

Dr. Weaver: I cannot see how Dr. McCaskey is able to reconcile the leukocyte count in this case with a streptococcus infection.

Dr. McOscar presented the clinical history of a case of fracture of the spine which was subjected to operation 11 days after injury. The patient's condition was that which is usually found in injuries of this nature. Male, aged 27 years; was driving under a shed with a sloping roof. Was caught between the roof and the wagonload of material on which he was riding. He was doubled up, and fell to the ground and was completely paralyzed from waist down. Pain in lower extremities was intense and required hypodermics of morphin. There was paralysis of the bladder. Protested against bowel movements because of pain. X-ray shows a fracture of the first lumbar vertebra with distinct separation of the fragments. I allowed the patient to wait seven days before operation. On operation a spicule of bone was found attached to the outer fragment and extended across the lumen of the canal. By pushing this fragment outward pressure was relieved from the cord. No splint was applied. Sensation at the end of 12 hours was good in the greatest area of the legs. Some loss of sensation over foot. It remains to be seen how much benefit will be obtained in this case. I think we should not look for return of nerve power too soon after relieving pressure on the cord.

Dr. Porter, Jr., reported the following case: Patient, male aged 33 years. Negative family and negative personal history except for typhoid, after which constipation has followed for last ten years. Has been gradually growing worse. Nine days before entering hospital was unable to have bowel movement that did not contain blood and mucus. Large doses of cathartics produced pain but no bowel movements. Negative abdominal examination. Leukocytes 11,400. Differential count normal. Urinalysis negative. Diagnosis of cancer of rectum with possible syphilitic stricture was made. Operation and artificial anus was established. Positive Wassermann was found. Is now on antisyphilitic treatment.

Dr. McCaskey: Every once in a while a case of tuberculosis turns up in my practice which proves that tuberculin can be used to advantage in comparatively acute cases. The present case has increased fever and tubercle in sputum. All the physical signs are present. Was put upon tuberculin emulsion in very small doses which were gradually increased. Patient has continued to improve and has gained 12 pounds in weight. I believe that tuberculin can be used in a great number of cases of tuberculosis with fever. All that tuberculin can do is to produce antibodies. This patient may relapse, but up to this time he has improved.

Dr. McOscar: Anything that will increase the protection against infection is a good thing. I saw two men a few years ago with tubercle in sputum in which the cases recovered without special medication.

Dr. B. Van Sweringen: The suggestion of Dr. McCaskey is a new matter and I am not prepared to criticize it. The fever in tuberculosis is due to the presence of tubercle within the body of the individual. It is not wise at this time to give additional tuberculin. The object of any treatment is to help the organism to help itself. I am unable to shake myself free from the value of climate in tuberculosis.

Dr. Beall: I think the statistics in a chronic disease should be based on the conclusions that Trudeau observes in treating a large number of tuberculous cases with tuberculin and without tuberculin. Those in the first stage of tuberculosis got along better than those cases which did not receive tuberculin. The second class of cases, that is the more advanced disease, were better than those without it. The third class of cases, still more advanced disease, became better and the relapses were less than those without it. Those are the facts which we must take into consideration.

Dr. Weaver: Along the line of vaccine therapy, Dr. Rhamy's idea of making pus emulsions, gained from an experience with gonococcus infections, is of value in the treatment of tuberculosis.

Dr. McCaskey: Unless tuberculin therapy is given under the most scrupulous care there is danger in its use. Wright said that vaccine is distinctly not indicated in acute infections, but Wright has now decidedly reversed his opinion concerning this fact, and to-day we are treating acute infections with vaccines. This particular case does not indicate anything. Large groups of cases are necessary to draw conclusions. The stimulating of active phagocytosis I still believe is the basis of immunity.

Dr. Beall reported the following case: Hemorrhagic disease of the new-born. This case occurred in the second pregnancy. Is one of twins. The disease occurred 48 hours after birth. Male child. Bled from the bowel and later from the mucous membranes of the mouth. Child was born breech presentation. Took some serum from father's blood and injected 12 c.c. into the infant. Hemorrhage stopped immediately. In getting the blood serum from the father's arm a rubber bandage was placed around the arm, and a sterile needle boiled in vaseline was introduced into the vein. We were able to get 140 c.c. of blood without trouble. The use of blood serum in the treatment of this disease is a common procedure. The cause of the production of the disease is still in doubt.

Dr. McCaskey reported case of woman 38 years of age having frequent hemorrhage (enough to produce anemia) from the nose, rectum and vagina. I advised use of any alien serum. This method has proved curative in this case.

Dr. Porter, Jr.: That a case of hemorrhage of the new-born can cure itself is beyond question of doubt. A case of this kind is reported in which this thing happened. Two cases since that time of which I have knowledge got human blood serum. One died and one got well.

Dr. Weaver: In the first place this is a practical subject. One child in every 177 is a bleeder. Human serum is best from two standpoints: 1. Because it is fresh: 2. It is usually obtainable. Alien serum must be fresh. These cases begin early in the first few days of life and one cannot wait for an alien serum. Most cases are not relieved by so small an amount of serum as was given in this case. The idea of the sterilization of the needle in vaseline follows out the theory of Brewer's tubes which are paraffin tubes. It is very unusual for a multipara to give birth to a bleeder.

Dr. Weaver exhibited an x-ray plate of a boy shown to this society two or three weeks ago, which was a case of paroxysmal dyspnea. The plate shows enlarged lymphatic glands in the neck. Tried out the case on thyroid extract to prove or disprove thyroid cause of the disease. The boy got better under this treatment. Motion carried that the committee appointed a few weeks ago to find a new meeting place be continued.

Adjourned. G. Van Sweringen, Secretary.

Meeting of October 8

Society met in regular session at Physicians Defense Building with 19 members present.

Minutes of preceding meeting dispensed with.

The paper of the evening was "A Study of the Treatment of Diseases of the Thyroid Gland with Injections of Hot Water into the Gland," by Dr. Porter.

Discussion. Dr. B. Van Sweringen: The best procedure I know about in the treatment of diseases of the thyroid is excision of the gland, and I have as yet no good reason to change my mind. Have had two or three cases lately in which this treatment was used. Rest in bed was followed by subsidence of the symptoms, and then the gland was removed. Good recovery in all. Have had one experience with hot water injection. One injection into the gland during an ether anesthesia following an operation for acute appendicitis. The symptoms in this case subsided following the injection. Until I find something better than excision I shall continue to advocate it.

Dr. McCaskey: The pathology of Grave's Disease is quite complex. Seems plain that it is based on a perverted or increased secretion of the gland. It may be true that the secretion is both perverted and increased. It does not matter how much secretion is poured out into the gland if it does not get into the circulation. This is evidenced by massage of the thyroid during surgical manipulation, that is, it increases the symptoms. I have never seen a case of Grave's Disease which looked threatening to the patient which did not have an enlarged gland. If we could limit the cases which have reached the end of their activity, an injection of hot water would in all probability end the trouble, but how are we going to do this? I have a patient now with a pulse rate of 180 and edema of the ankles. She has a pretty large thyroid which feels like a cystic goiter, and has had it for ten or fifteen years. The symptoms have been recurring once or twice yearly. This year in June the symptoms came back, excepting the exophthalmos. She was put to bed. The edema largely disappeared and the heart's action decreased. The orthopnea which had been present since June had improved. She had been passing small quantities of urine. This has increased. I think we can give an injection of hot water in this case and subsequently do a thyroidectomy.

Dr. McOscar: The conditions which Dr. Porter has pointed out in his interesting paper are quite to the point. Any gland which is large enough to produce symptoms must be reduced by some means. The woman who has during her menstruation or her pregnant state an enlargement of the gland, has a circulatory disturbance. The benefit of hot water injections into these glands does just what ligation of the arteries does. If the hot water does not reach in the neighborhood of these vessels, it does not do much good.

Dr. Gleck: In regard to the ocular symptoms of goiter, the bulging forward of the eyeball prevents the motion of the muscles of the eye. It is not a true paralysis but mechanical interference.

Dr. Drayer: I have referred a few cases in all stages of Basedow's disease to Dr. Porter for hot water injections, and all have been benefited. The results are spectacular. The effect is lasting. In the case referred to in his paper, the pulse dropped to below 100 when for four months it had been running 120. This patient had a small goiter and received one injection of 40 minims of boiling water.

Dr. Duemling: Just now I have a case of advanced Basedow's disease for which I have been waiting seven weeks for an opportunity to ligate the arteries. If by hot water injections we can put these patients into a condition where some surgical procedure for their relief can be done we certainly have accomplished a great result.

Dr. B. Van Sweringen: It has occurred to me that in all cases an incision into the skin might help one to know where he is placing this boiling water.

Dr. McCaskey: The thing you seek and the thing you get in injections of hot water into the gland is coagulation increase.

Dr. Rhamy: There are two types of hypertrophy in the gland in Grave's disease, cystic hypertrophy and adenomatous hypertrophy. Cystic hypertrophy is the type you have in simple Graves; adenomatous hypertrophy is the type in severe cases. The severity of the grades of Grave's disease depends entirely on the hypertrophy of these secreting cells. These cases simulate malignancy in their appearance. Breaking down of the cells also occurs in the very severe types. The effect of hot water injection is the effect of the heat. The hot water literally cooks the tissue. This is followed by inflammation which in turn is followed by scar tissue, the same as you have following any burn. The gland is destroyed and of course the secretion is lessened.

Dr. Weaver: Marine, who has made one of the most exhaustive studies of the thyroid, claims he is able to destroy all of the secreting part of the gland by the internal administration of iodin, but the patients go on and have their disease. No internist is able to show the same percentage of recoveries that the surgeon does. I had the opportunity to see three or four cases reoperated at the Mayo clinic because they had not taken out enough of the gland at the first operation.

Dr. Porter, closing: The permanency of relief of symptoms for cure of the disease depends upon the amount of the gland removed. Five-sixths of the gland should be removed in every case. The cases for injection are the cases which will not submit to surgical procedure or to rest in bed. You can cure these cases while they are up and around. It has been this class of cases which I had in mind during my experimentation along this line, also those desperate cases which cannot stand excision. A few injections of hot water will put the cases in condition for a good surgical risk. The vasomotor symptoms of this disease are peculiar. A case recently operated bled all over. This hemorrhage stopped on packing. Some cases are completely cured by hot water injections and the gland disappears. On the other hand, the injections have caused the gland to disappear but the symptoms continue. All of the destruction is not caused by the application of heat but by a starving of the cells from the contraction of the fibrous tissue as a result of the injections. The voice is always interfered with in thyroidectomy, but it is usually restored. It is not hard to figure out what iodin does. If you continue the administration of iodin you destroy the gland tissue and the natural tendency to hyperthyroidism is to hypothyroidism.

Motion carried that next meeting be held at Commercial Club and be followed by a luncheon and smoker.

Adjourned. G. VAN SWERINGEN, Secretary.

Meeting of October 15

Society met in regular session at the Commercial Club with 39 members present. Reading of minutes dispensed with.

Dr. Richard Smith, of Grand Rapids, was the speaker of the evening, and read a paper on "Some Common Bone Lesions." Dr. Smith exhibited his very beautiful collection of specimens of bone pathology. This collection is one which for variety, number and excellence is one of the best ever exhibited before our society.

Discussion. Dr. Duemling: I have never had the pleasure of seeing as many beautiful specimens as are presented here to-night. The specimens of rachitis are very interesting. I saw Virchow present such specimens as these years ago to his classes. There is a set of femurs in this collection which shows the effects of decubitus. Part of the destruction in this specimen is due to absorption.

Dr. Porter: I have been interested in the study of sarcomata of bone in the past four to six years. We have reformed our idea of bone sarcoma, that all long bone was thought to require amputation; now thorough curettage is done. Bloodgood reports good results following conservative operations, that is thorough curettings. I do not know in what tissue of bone the carcinoma of the skull in metastatic cancer occurs. This specimen of osteosarcoma of the tibia should have had a resection done with bone grafting. Under ordinary circumstances no surgeon is warranted in removing a sarcoma of the bone without immediate section is made in order to tell him how extensive his operation should be.

Dr. B. Van Sweringen: One case reported several years ago in which a sarcoma of the tibia presented and amputation was done. Recurrence took place and killed the patient. The amputation was done above the knee. I think the principle good from a discussion of this kind aside from the rarity of some of the bone lesions presented is that the different points in the diagnosis between tuberculosis and staphylococcic and streptococcic osteomyelitis were thoroughly brought out.

Dr. Rosenthal: The doctor touched upon the fact that lesions of bone are secondary. Reported the history of a case of enlarged prostate which was so large it prevented drainage. This operation was done 16 years ago. Scraped out malignant prostate with Volkman's spoon. In the same case both femurs were broken by simply turning the patient over in bed. We do not know what carcinoma and sarcoma are. Some cases yield to conservative treatment; others succumb to secondary growth after high amputation. In the use of a mild escarotic this recurrence is sometimes prevented. I have seen cancer implanted in the needle mark in placing the superficial stitches following operation. We must treat cancer or sarcoma as an infection which can be transplanted. Where you have multiple fistulae in bone infections, if you will inject these tracts with methylene-blue it makes it very easy to dissect out the tracts.

Dr. Rhamy: This case calls to my mind a case I saw a few years ago. Found a normal blood-count with an increase of myelocytes. The only symptom present was pain. Later on the patient developed a paralysis and died. The post-mortem showed multiple myeloma. Several ribs were broken. Several tumors in the thoracic cavity showed the same tendency to increased growth. The tumors were scattered over the entire skeleton. Sarcoma of the bone marrow was found.

Dr. Porter: I meant to say that the microscopic picture of these large sarcoma of bone does tell you what condition is present, and that a resection even if the periosteum is involved is all that is necessary.

Dr. McCaskey moved that a rising vote of thanks be tendered to Dr. Smith for his splendid paper before the society.

Adjourned. G. Van Sweringen, Secretary.

INDIANAPOLIS MEDICAL SOCIETY

Meeting of October 15

Meeting called to order by the president at 8:30. Attendance 56. Minutes of the last meeting read and approved.

Application of Dr. John A. Garrettson was read for first time.

Motion was passed appointing committee to use influence in obtaining passige of a city ordinance requiring railroads to provide watchmen at crossings until midnight. Following committee was appointed: Drs. Hatfield, Dodds, Cunningham, Jefferies and H. S. Thurston.

First paper of the evening was read by Dr. H. K. Bonn. Title: "Phenolsulphonephthalein as a Determinate of Kidney Function." Technic of test was described and cases reported. Eight normal cases and a series of cases suffering from a variety of conditions in which the test was made allowed the following conclusions: (1) Phenolsulphonephthalein appears in urine in normal cases in from two and one-half to eleven minutes when given subcutaneously. Time of appearance is of little value, merely indicating time when urine should be collected for percentage determination. (2) The dye is excreted in normal individuals at rate averaging 39 per cent. the first hour and 17 per cent. the second hour. (3) In cases having renal lesions output of dye was decreased except in a case of renal sarcoma. These cases averaged 24 per cent. the first hour and 10 per cent. the second hour. Output is thus decreased in lesions of renal origin. (4) A low percentage of elimination does not absolutely contraindicate operation. (5) It is unnecessary to have patient drink a large amount of water previous to making test. (6) When ureters are catheterized it is necessary to use flute-end catheters or Garceau's one-catheter cystoscope. (7) It is preferable, with ureteral catheterization, to give drug intravenously and collect urine every fifteen minutes for forty-five minutes. (8) The phenolsulphonephthalein test is the most accurate test of kidney function which we have but will not inform a surgeon when a patient can be operated safely or the contrary.

Second paper read by Dr. John R. Newcomb. Title, "An Analytical Consideration of Eye-Strain with Special Reference to the Symptoms Cited to the General Practitioner." An analysis of symptoms in 500 cases of refraction was reported. Ages varied from 5 to 45 years. Mechanism of errors of refraction illustrated by diagrams. Frequency of each form determined by percentage. The percentages in which certain symptoms occurred was also determined. In compound hypermetropic astigmatism, combined frontal and supra-

orbital headache was a symptom in 69.5 per cent. of cases and only 14.6 per cent. had frontal headache alone. In compound myopic astigmatism, there were no cases of combined frontal and supra-orbital headache and frontal headache alone was present in 68.2 per cent. of cases. Frontal and supra-orbital headache occurred in no form of myopia. Also in simple myopia and myopic astigmatism there were no cases of sick headache, vertical, suboccipital, or temporal headache. In compound hypermetropic astigmatism every form of headache occurred. Nuchal pain occurred in greatest percentage in both forms of simple astigmatism. Supra-orbital, temporal and vertical pain occurred in compound and mixed astigmatism and was absent in other errors. In cases of rapid ocular fatigue, the percentage was high in hypermetropias and low in myopias. Tardy accommodation was more frequent in various forms of myopia than in the hypermetropias. Inadequate vision without pain is characteristic of myopias. Mechanical defects of eye produce certain symptoms in a dominant percentage of cases.

Discussion—Dr. Erdman: General opinion has been that the phenolsulphonephthalein test is far in advance of other tests to determine kidney function. Recently the test has not been given as great credit as formerly. Delay in elimination means a disorder in kidney permeability, but there may be a variation in the same case. Time of beginning elimination is not so important as total amount eliminated. Test valuable and combined with other tests aids in making a definite diagnosis.

Dr. Moore: Test particularly valuable to surgeon who operates on kidney. Indigo-carmine test not so valuable.

General Discussion—Dr. Emerson: The trouble with former test of kidney function was that the drug used was destroyed in the body. Ninety per cent. of phenolsulphonephthalein is eliminated and can be measured. Test is more valuable in surgical diseases than in medical diseases since it depends on destruction of tissue. Dr. Newcomb's subject has not been previously written upon. The equivalents of headache and neurological conditions due to headaches are frequently due to eye strain. Disturbances of equilibrium and fainting spells may also be caused by eye strain.

Dr. Heath: The information given by Dr. Newcomb is valuable to general practitioner. Eye strain is a frequent cause of headache. Frontal and supra-orbital headaches are most common. Vertical headaches are infrequent. Headache from eye strain is usually not present in mornings. It is not always possible to tell by symptoms whether or not eye strain is present but a suggestive picture is usually presented.

Dr. T. B. Eastman: Headache due to pelvic trouble or eye strain is difficult to differentiate. The pelvic headache is liable to be vertical. A case was reported illustrating the difficulty.

Dr. Brayton: Papers instructive from fact they covered specific lines of study and investigation. A large per cent. of doctors are cramped from a lack of knowledge of the eye and methods of examination.

Dr. Bonn, in closing, nephritis can be determined fairly well by using Cabot's colorimeter with the phenolsulphonephthalein test.

Dr. Newcomb, in closing, the "painless headaches" may be caused by incipient eye strain. A case was reported.

Adjourned. HOMER R. MCKINSTRAY, Secretary.

Meeting of October 21

Meeting called to order at 8:30 by president. Attendance 36. Minutes of last meeting read and approved. Dr. Stillson was present having recently returned from Europe. He spoke for a few minutes concerning his trip.

Application of Klore W. Hidy read for first time.

Dr. P. E. McCown read a paper entitled "Some Results Obtained from Vaccines and Sera in Infections of Urethra and Adnexa." Cases were reported which were treated by autogenous vaccines, stock vaccines and sera. Author concludes that autogenous vaccines should be used in all cases where it is possible. Results by their use were uniformly good. Local treatment was continued in each case. Where autogenous vaccines were not available, stock vaccines made from different strains of gonococci were used with good results. In acute cases, serum is more effective. If a proper serum, containing antibodies from all the strains cannot be obtained, there is a distinct advantage from use of best obtainable. Believes that vaccines and sera will ultimately be completely effective in treatment of all gonorrheal infections.

Discussion—Dr. Langdon: Old methods should not be abandoned until new have been established. Vaccine treatment of gonorrhea is practical. Antibody of sera can be determined by complement fixation. Diagnosis can be made by a cutaneous test. The paper is valuable since it is result of individual work.

Dr. Morrow: Local treatment of gonorrhea often does not produce results. In chronic cases or latent infections, vaccine is of most use. Theoretically, the vaccines are ideal but their use is not always successful. Autogenous vaccines will improve most cases but will not produce a cure. Stock vaccines have been used more successfully than autogenous vaccines. Bacteria may become resistent and results of vaccine treatment will be incomplete. If autogenous vaccines are used, new preparations must be frequently made. Use of vaccines has not been completely worked out and their effectiveness is not definitely established.

Dr. Erdman: Related an unsatisfactory experience from use of anti-gonorrheal serum. A vaccine may remove gonorrheal infection but it will not affect pathological changes in mucous membrane.

Dr. Stillson reported a case of chronic recurrent gonorrheal ophthalmia treated with vaccine with good results. He discussed the manner in which the variety of strains of gonococci originate.

Dr. Shimer: Vaccine therapy is not completely worked out. It is based on Ehrlich's old idea of immunity which has been disproven. The treatment is empirical but practical.

Dr. Thrasher: Results of vaccine therapy not always satisfactory. Our knowledge is not definite. Sera, vaccines and phylacogens are used. Rhamy sterilizes the purulent discharge and injects it with good results. Question decidedly complicated. We are only beginning to understand the difficulties of vaccine therapy.

Dr. McCown, in closing: There are many reasons for failure in making of autogenous vaccines. Frequently an organism will be found in urethra closely resembling gonococcus which grows more luxuriantly than gonococcus. Vaccine treatment should be combined with local treatment.

Adjourned. HOMER R. MCKINSTRAY, Secretary.

Meeting of October 25

Special meeting called to order by president at 8:20. Attendance 120. The meeting was called in honor of Dr. Hugh Cabot, of Boston, Dr. Louis Frank of Louisville, Dr. E. O. Smith of Cincinnati, and Dr. Wheeler of Lexington, Ky., who were present. The visitors being guests of Dr. W. N. Wishard, he was asked to preside.

Dr. Cabot read a paper on "Surgery of the Prostate." Dr. Smith discussed the prostate from the standpoint of symptomatology and pathology. Dr. Frank also discussed the paper of Dr. Cabot.

Society adjourned and an informal reception and smoker followed.

Homer R. McKinstray, Secretary.

Meeting of October 26

Meeting called to order by president. Attendance 64.

Minutes of last meeting read and approved.

Applications of Lew W. Barry and Mason B. Light were read the first time.

Report of Council recommending election of P. W McCarty and C. R. Marshall adopted.

First paper, read by Dr. Goethe Link, "Observations Upon Diagnosis and Treatment of Appendicitis;" paper was a summary of observations in more than one hundred cases operated. Four deaths resulted. Appendicitis is nearly always a chronic disease with acute exacerbations which once established do not entirely disappear. Operation was strongly advocated upon those who have had one or more attacks to free patient of chronically crippled condition of gastro-intestinal function. Symptoms are variable and atypical cases can be explained on ground of varying anatomic relationships. The different positions of appendix in abdomen were noted in this connection. The earliest possible operation was strongly urged in acute appendicitis and considered the means of early diagnosis. In appendicitis with general peritonitis early operation and thorough toilet as taught by Joseph Price is writer's custom. Technic employed in operating at different stages was described. Several cases were reported and specimens from each case were shown.

Dr. W. S. Given read paper on "Perianal and Perirectal Abscesses." Perianal and perirectal tissue is predisposed to infection from anus and rectum. A variety of bacteria may be cause. Tuberculous infection may be primary or secondary. Best classification is simple; those below levator ani muscle or superficial and those above muscle or profound. Each of these types may be divided into three types. Tegumentary, subtegumentary and ischio-rectal comprising the superficial group and retro-rectal, superior pelvi-rectal and interstitial, the profound group. Diagnosis and treatment of various groups discussed. In all abscesses early operation should be practiced to prevent destruction of tissue and formation of fistulae. General anesthesia is necessary in all cases except tegumentary and subtegumentary forms since dilatation of anal sphincter is necessary.

Discussion.—Dr. Earp: Appendicitis is a surgical condition. Diagnosis should be made early. Conditions other than appendicitis cause pain in region of appendix without local tenderness. Surgeon and internist should consult in studying a case. Operation is best done in the interval. If improvement is taking place in an acute attack, it is best to wait. Morphin in large doses obscures picture. Purgatives should be used cautiously. Heat locally is better than cold.

Dr. Ross: There is no medical treatment for appendicitis. All treatment is surgical and it is a crime not to offer such treatment. There should not be an opportunity for interval operations. Diagnosis can usually be definitely made. Cases should not go to stage of pus formation. It is not possible to tell whether a case will be mild or severe. Waiting is never justifiable. Operation should be done as soon as diagnosis is made.

General Discussion.—Dr. Thorner: Appendicitis is always surgical. Chronic cases do not always have acute exacerbations. Sometimes recovery takes place without operation but waiting is not justifiable. Reported case of gangrenous appendicitis in old man. Sometimes symptoms are not severe when condition is extreme. In reference to Dr. Given's paper, "Free Blood-Supply About Anus Tends to Prevent Infections." In operating sphincter should be well dilated.

Dr. Hadley: Catharties should never be given in acute appendicitis. Treatment should be directed to putting bowel at rest. Peristalsis must be limited. Deaver's report is conclusive concerning this point.

Dr. A. B. Graham: Neither catharties or enemata should be given in appendicitis. Gastric symptoms not always present in appendicitis. Diagnosis is not always easy. Dr. Given's paper is timely. Martin of Philadelphia contends that 38 per cent. of anal abscesses are tuberculous. Some authorities claim that they are all tuberculous. Abscesses will not heal by simple incision since most of them are due to blind internal fistula.

Dr. Lapenta: There is no medical treatment of appendicitis. Blood-examination is of value in making diagnosis. Perityphlitis simulates appendicitis. Many stomach cases are of appendiceal origin.

Dr. Martin: Early recognition of appendicitis is important. In acute cases diagnosis is usually made but there may be difficulty in chronic cases. Treatment should be surgical. Adhesions should not always be broken up. A large incision should be made and head of colon explored.

Dr. Dodds: Moved the Society take some action concerning death of Dr. Harry B. Leavitt, Superintendent Indiana Tuberculosis Hospital. Motion carried. Drs. Dodds, Tomlin and Hadley were appointed.

Dr. Noble: Incision in appendectomy is usually along rectus border. This best for inexperienced operators. Best incision for one who is familiar with palpation of abdominal organs, is gridiron incision. Free access can be had and there is not the danger of hernia.

Dr. Jackson: There are cases of mild acute appendicitis but such a fact cannot be determined. Mild cases may rapidly become malignant. Early diagnosis and operation is prophylactic. Appendix may become gangrenous in a few hours.

Dr. Pantzer: Acute appendicitis may be first manifestation of one of the acute exanthemata. The tubercle bacillus is not pus producing and when an abscess occurs about anus some other organism must be present.

Dr. Pfaff: The profession does not understand that early operation is absolutely indicated in appendicitis. Diagnosis in acute cases is usually easy and operation should be done immediately. Carrying a case to interval is never justifiable.

Dr. Morris: Complex anatomy about rectum and anus predisposes to formation of abscesses. All of the abscesses are not tuberculous. Slight injury may be a cause.

Dr. Link, in closing, treatment of appendicitis is not understood. Obliterative type and cancer may occur in aged. Incision is best made large enough to allow exploration.

Dr. Given, in closing: Although there is a free blood-supply at rectum, freedom of motion allows an anemia and predisposition to infection. Focus of infection cannot always be found. Tubercle bacillus may be a frequent cause of ischiorectal abscesses.

The memorial committee offered the following report:

Whereas, The all-wise Creator has again seen fit to visit the medical profession and take from this life one of our beloved members, be it

Resolved, That the Indianapolis Medical Society express its appreciation of the work of Dr. Leavitt, whose death occurred in this city Oct. 29, 1912; be it

Resolved, Therefore, that, owing to the high standard of citizenship and medical attainments acquired by Dr. Leavitt, that we express our appreciation of his worth and value; and

Whereas, His last year was given to the tuberculous poor of the state that it is evidently more fitting that we should record in writing and have spread upon the minutes of this society an acknowledgment of our sincere regret at our loss in his death; therefore be it

Resolved, That we not only spread upon the minutes of this society the above expression of our appreciation, but that we send also to his widow and family a copy of the resolution.

Society adjourned.

Homer R. McKinstray, Secretary.

Meeting of November 5

Meeting called to order by president. Attendance 40.

Reading of minutes dispensed with.

Application of Dr. Cregor was read the second time.

Report of Memorial concerning Dr. Leavitt's death was adopted.

Program consisted of case reports.

First report was made by Dr. Joseph Rilus Eastman. A dissection of two fetuses was presented and peritoneal folds demonstrated. Bloodless fold of Treves was demonstrated and theory advanced that its contraction might cause Lane's Kink. A contraction of genito-mesenteric fold might likewise cause an ileal kink. Persistence of parieto-colic fold of Jonnesco might also correspond to Jackson's membrane. These folds are of interest in relation to pathology in adult.

Dr. Garshwiler presented a child three weeks of age with extrophy of bladder. History negative. Upper posterior border of vesical mucosa was flush with abdominal skin, while lower posterior vesical wall and trigone laid in a pocket formed by penis and skin of pubis making a very shallow depression. By holding down penis ureteral orifices could be made out. There was complete epispadius. Testicles and scrotum normal. Pubic bones separated one inch at symphysis. Treatment consists of mechanical appliances and operations. Plastic operations to form a bladder or Madyl operation of transplanting trigone into sigmoid may be done. Extrophy of bladder occurs once in 50,000 births and is more frequent in male. Ninety per cent. die in infancy.

Dr. Dugan and Dr. Dunning reported a case of Epidemic Cerebrospinal Meningitis. Dr. Dugan reported history and diagnosis. Patient, female, aged 14. Family history of goiter. Personal history of goiter and usual infectious diseases. Otherwise health good. Illness began with vomiting followed by unconsciousness in a few hours. Examination showed high temperature with rapid pulse and respiration. Thyroid gland enlarged. Urine contained albumin and casts. Stimulation and cold applications to reduce temperature were employed. No improvement resulted. Blood-examination showed a leukocytosis with 86 per cent. polynuclears. Retraction of head, tenderness along spine and Kernig's sign present. Lumbar puncture done, examination of which showed meningococcus. Dr. Dunning reported treatment. Stimulation, cold applications, nutrient enemata, cystogen per rectum and three subdural injections of antimeningitis serum were used. First injection was given 5½ hours after lumbar puncture and thirty-four hours after onset of symptoms. Maximum dose of 45 c.c. of serum was given the first time. Slight improvement resulted. Bromids, chloral and morphin were given. Twenty-three hours after first injection, a second injection of 45 c.c. was given. No improvement. Twenty-four hours after second injection, a third dose of 15 c.c. of the serum was given. Patient was in an extreme condition. Patient steadily grew worse and died in a short time.

CONCLUSION

Lumbar puncture is necessary in order to make an early diagnosis so that serum may be given with benefit. Kerley's report shows 9 per cent. of deaths when serum is given before third day, 22 per cent. when given between fourth and seventh days and 36.4 per cent. when given later than seventh day.

Dr. Wm. S. Tomlin presented a patient, a child of 5½ years, and reported a case of perisinus and intrasinus abscesses operated together with a resection of internal jugular vein. Both ears had been subject to chronic otitis media and diagnosis of sinus supperation was made on the history and characteristic pyemic symptoms and the side affected determined partly on spontaneous nystagmus being on affected side. Operation revealed subperiosteal accumulation of pus communicating with mastoid cells and that, through a secondary fistula, with extradural abscess. Evacuation and completion of radical mastoid followed by internal jugular ligation and then evacuation of entire sigmoid sinus and resection of more than half of its outer wall. Flow from above established but none obtained from direction of jugular bulb. Time of operation, forty minutes. Patient's condition demanded postponement of resection of jugular which was done forty-four hours later. Patient left hospital on the ninth day and recovery had been complete with improved hearing. Pathology and diagnosis of sigmoid sinus thrombosis and suppuration given. May come from acute or chronic otitis media and vigilant aseptic care and frequent observation of these cases recommended for prophylaxis and to detect, for surgical interference, at earliest manifestations. Fifty per cent. of cases unoperated die of meningitis and large percentage of remainder succumb to some form of sepsis, pyemia, toxemia, metastasis, etc. Early operation recommended for all cases. Later operation while of greater mortality much superior to expectant method. Surgeon operating these cases should be especially trained and skilled in this particular branch of surgery and able to proceed deftly and rapidly reaching and eradicating all diseased tissues and avoiding and protecting the very important structures constantly within dura and to explore brain without any loss of time. Many cases apparently hopeless and almost moribund as this one make prompt recovery after thorough operation occupying the shortest possible time commensurate with good work.

Dr. Jobes made following reports:

Salivary calculus: Patient complained of intermittent pain and swelling in the floor of mouth and beneath angle of the jaw. Exploration of Wharton's duct revealed presence of a foreign body which was removed. Relief for one year when trouble recurred with symptoms of sepsis. Wharton's duct was closed.

Exploratory punctures failed to give any information. Patient was removed to hospital with idea of removal of submaxillary gland. Instead of so doing an incision was made through duct, within mouth, with idea of establishing a fistula posterior to obstruction. Free discharge of pus and saliva gave immediate relief. Two weeks later the specimen presented was discharged. Other calculi are probably present which will eventually require removal of gland.

FRACTURES OF THE HEAD AND NECK OF THE RADIUS

Case 1.—Lineman fell distance of 30 or 40 feet. In addition to other injuries, sustained fracture of right ulna and head of right radius. Large fragment of head completely detached. Fragment removed. Function fair. Complete removal of head would probably have given better results.

Case 2.—Patient fell downstairs sustaining in addition to other injuries a posterior dislocation of both bones at elbow. Neck of radius was fractured. Head of bone was excised with a good result.

Case 3.—Patient fell from a second-story window sustaining a fracture of neck of radius with dislocation and separation of fragment. Head of bone removed with nearly full degree of motion resulting.

Report made on account of comparative infrequency of fractures of head and neck of radius and because in each case the head of the bone was removed. While removal of head of the bone affects function of joint, results are better than under other lines of treatment. Removal is not advocated in all cases. Some cases recover with almost perfect function without an operation of any character. Operative fixation exposes joint to infection and technical difficulties are greater with only a chance of any better result.

Dr. Brayton reviewed the cases of scleroderma having occurred in Indianapolis, and discussed the disease in general. A recent case was reported. Patches about the body were so indurated that movements of the body were limited. Some were pigmented and others were without color. Treatment consists of thyroid extract internally. Baths are of benefit. Patients must be protected from temperature changes.

Society adjourned.

Homer R. McKinstray, Secretary.

DELAWARE COUNTY

The regular meeting of the Delaware County Medical Society was held November 1, with Vice-President Bucklin in the chair.

Dr. C. H. Wright of Yorktown presented a brief paper on Tuberculosis, stating that the term "tuberculosis" implies a compilation of types and has a much broader meaning than is usually given by the laity; our duty to help educate the masses to a clearer understanding. Tuberculosis is one of the most ancient diseases; both Galen and Hippocrates give clear clinical pictures. Sylvius and Morton in the sixteenth century, recognized the anatomical tubercle. It remained for Koch to isolate the tubercle, describe its ravages and specify the cause, and but little progress has been made since.

To-day we have to deal with the tubercular army, equipped with a weapon that kills more people yearly than do war and all other diseases combined. Treatment is not the great question to-day, but prevention is. Must fight the cause by system and science, and must begin in the schoolroom. We must have institutions and sanitariums built and maintained by the state. Of course the states that are geographically favorably located will have material advantage, and favorable results from treatment will be more easily attained. We must look forward to the creation of a national Board of Health, equal in its power and efficacy to the other departments of our government. Organization, science, isolation, fresh air, sunshine, pure wholesome food, under government supervision form the consumptive's hope.

Dr. Kemper: Under present conditions we have nothing equal in value to the sanitarium treatment for tuberculosis. However, if the same arbitrary rules were enforced and the same regimen followed in the home that are required in institutions the results would be nearly as beneficial. The difficulty is in getting the patient to follow the explicit instructions of his physician.

Dr. Molloy called attention to the mistake in sending patients with little or no surplus cash to the extreme west or southwest. Unless he has ample funds to meet all expenses he is worse off than at home. He is among strangers who are not interested in his welfare and in a community that resents his intrusion; therefore his environment is unsatisfactory, and his finances are such that he cannot materially change it, and he soon has homesickness added to his other burdens and ailments.

Dr. Cecil referred to the good work done for several of his patients at the Rockville institution. One man in particular presents a remarkable history. He was sent to the institution with the expectation that he would be pronounced incurable and returned to his home, but he was accepted and placed under treatment. His present condition shows one lung entirely gone, but there has been no evidence of tubercle bacilli for months, and the patient is apparently cured.

Dr. Stover spoke of the advantages of having the patient under absolute control. He recommends the use of the window tent where for any reason outdoor life cannot be maintained.

Adjourned. H. D. Fair, Secretary.

JEFFERSON COUNTY

The Jefferson County Medical Society met in regular session at Madison on November 27.

Dr. J. K. Pollock, of the Southeastern Indiana Hospital for the Insane, read an interesting paper on Pellagra.

Dr. C. C. Bitler was elected to membership in the society.

Adjourned. Geo. E. Denny, Secretary.

KNOX COUNTY

The Knox County Medical Society held its regular monthly meeting November 12, with fourteen members in attendance. Minutes of previous meeting read and approved.

A committee consisting of Drs. Ramsay, Griffith and the secretary, was appointed to arrange for the annual banquet on the evening of December 10.

The scientific program consisted of a paper on "Diphtheria," by Dr. S. A. Prather, and a paper on "Tonsillitis," by Dr. C. E. Stewart. General discussion. The members expressed themselves as not being satisfied with the rigidity of the quarantine enforced during the epidemic of diphtheria now raging in Vincennes.

Adjourned. H. D. McCormick, Secretary.

KOSCIUSKO COUNTY

The regular meeting of the Kosciusko County Medical Society was held on November 26. Several cases were reported, Dr. Yocum reporting a case of sudden, severe, agonizing pain in right thigh during convalescence from pneumonia. As there were no typical signs of thrombosis or other local pathological conditions discoverable which might produce a pain of that character and intensity, the case brought out a great deal of interesting discussion. Dr. McDonald reported a case of severe pyelitis with chill, recurring temperature of 105, leukocytes up to 40,000, with recovery without operative interference.

Dr. Murphy had prepared an obstetrical chart giving a great deal of data. A copy of this chart was given to each member present.

The program committee was instructed to arrange whatever seemed best for the December meeting.

Adjourned. C. Norman Howard, Secretary.

MONTGOMERY COUNTY

The Montgomery County Medical Society met in regular session November 19 with 15 members present. After a social meeting and supper the members went to the small court room for the business and literary program.

In the absence of both president and vice-president, Dr. E. C. Lidikay, of Ladoga, was chosen president pro tem.

After a short business session, Dr. F. O. Schenck, of Crawfordsville, presented a paper on the subject, "The Management of Cases of Difficult Labor," laying special emphasis upon prevention of such abnormalities. The subject was divided into uterine inertia, eclampsia and placenta praevia.

General Discussion. The use of pituitrin hypodermatically was reported as giving fine results in uterine inertia; also chloral hydrate and sodium bromid in cases of eclampsia. In cases of placenta praevia, if expectancy is deemed not advisable, Cesarean section is recommended rather than tampon. Manual delivery can oftentimes save a life.

Dr. Schenck reported having had, in seven years of practice, eleven cases of puerperal eclampsia and three cases of placenta praevia. Some members who had practiced thirty to forty years reported fewer, and some no cases of either.

The petition of Dr. N. A. Carey, coming from Kosciusko County Medical Society was accepted.

The December meeting, December 17, will be dues night, also election of officers. Dr. C. F. Neu, of Indianapolis, will present a paper at that time.

Adjourned. J. L. Beatty, Secretary.

SPENCER COUNTY

The Spencer County Medical Society met in regular session with the president, Dr. C. D. Ehrman, of Rockport, November 19.

A general discussion of the two subjects, "Use of Anesthetics in Labor," and "Management of Third Stage of Labor," was carried out.

The next meeting of the society will be the third Tuesday in December, at which time the annual election of officers will take place.

Adjourned. H. Q. White, Secretary.

VANDERBURG COUNTY

Meeting of October 22

The Vanderburg County Medical Society met in regular session, October 22.

Representatives of the Evansville Gas Co., who have purchased a pulmotor for their own use, demonstrated the device to the society and offered the services of the machine to any physician who might need it, free of charge.

Dr. Wm. S. Ehrich presented the paper of the evening on Urinary Calculi. Discussion by Dr. W. R. Davidson.

At the previous meeting, society unanimously voted to give their support to the movement to get pure milk in Evansville.

A committee was appointed to devise means for listing those patients who were able to pay a doctor but who would not do so.

Report of delegates who attended the state meeting was heard.

Adjourned. W. S. Ehrich, Secretary.

Meeting of November 12

The Vanderburgh County Medical Society met in regular session November 12, with 23 members present.

Dr. W. R. Davidson read a paper on "New Classification of Nephritis."

Adjourned. W. S. Ehrich, Secretary.

Meeting of November 24

Society met in regular session. The paper of the evening was on "The Philosophy of Physiological Therapeutics," by Dr. H. M. Baker. This paper was so excellent that it was voted to recommend its repetition before the State Association.

After the secretary's report, motion was carried that the report of the committee on the rating list be adopted and the committee discharged.

Dr. M. Raydin reported part of the transactions of the International Laryngological Society, especially concerning Ozena, and asked that all cases be reported to him as representative of this district.

The following interesting cases were reported: Extra genital and multiple chancres, Dr. Ehrich; Case of blindness of unknown etiology, Dr. Raydin; Fracture of femur with delayed union; and constriction of the penis with a harness buckle, Dr. Hunt; Peculiar fracture of the skull, Dr. Linthicum; Transposed viscera, Dr. W. R. Cleveland.

The following resolution made by Dr. W. R. Cleveland was adopted:

Resolved, That as the public drinking-cup is contrary to the laws of hygiene and a menace to public health, they should be abolished from our public schools, and either the individual cups or the bubbling fountain be installed in their place.

Adjourned. W. S. Ehrich, Secretary.

THE TRUTH ABOUT MEDICINES

This department presents, in concise form, facts about the composition, quality and value of medicines. Under "Reliable Medicines" appear brief descriptions of the articles found eligible by the A. M. A. Council on Pharmacy and Chemistry for inclusion with "New and Nonofficial Remedies." Under "Reform in Medicines" appear matters, tending toward honesty in medicines and rational therapeutics, particularly the reports of the

A. M. A. Council on Pharmacy and Chemistry and of the Chemical Laboratory.

The text on which these abstracts are based may be obtained from the American Medical Association, 535 Dearborn Avenue, Chicago.

RELIABLE MEDICINES

Articles found eligible by the Council on Pharmacy and Chemistry for inclusion with "New and Nonofficial Remedies."

Casoid Diabetic Flour is a mixture of the albuminoids of wheat (gluten) and of milk (casein) composed of approximately: proteins 84.5, fat 1.4, mineral matter 2.5, cellular fiber, etc., 0.7, water 10.8. Employed in cases where carbohydrates are contra-indicated, such as diabetes, amylaceous dyspepsia, etc. Thomas Leeming & Co., New York (*Jour. A. M. A.*, Nov. 2, 1912, p. 1622).

Paratophan is methyl-atophan, 6-methyl-2-phenylquinolin-4-carboxylic acid, $CH_3.C_9H_4N.C_6H_5.COOH$, $6:2:4 = C_{17}H_{13}O_2N$. Its action, uses and dosage are the same as atophan (see Truth About Medicine Department, April, 1912, p. 408). Paratophan tablets contain paratophan 0.5 gm. (7½ grains). Schering & Glatz, New York (*Jour. A. M. A.*, Nov. 2, 1912, p. 1623).

Phenoco is a preparation of coal-tar creosote and higher phenol-homologues in soap solution. It is stated to contain 8 per cent. coal-tar creosote (obtained by the destructive destillation of coal, and containing 15 per cent. cresol but no phenol), 62 per cent. higher phenol-homologues (phenols containing two or more methyl groups) and 30 per cent. soap. It is miscible with water, forming an emulsion. It is an antiseptic and germicide, being in the latter respect fifteen to sixteen times as strong as phenol, and for mammals about one-half as toxic as phenol. It is used in dilutions of 1 per cent. to 5 per cent., or higher. The West Disinfecting Co., New York (*Jour. A. M. A.*, Nov. 9, 1912, p. 1717).

Tuberculins represent the toxins of the tubercle bacillus. They may be in the form of a filtered extract of the bacilli or may be composed of the pulverized insoluble substance of the bacilli themselves. In the latter, or emulsified form, tuberculin is known as tubercle vaccine, and might be classed with the "Bacterial Vaccines." Supplied in the following forms:

Tuberculin Bacillen Emulsion, Tuberculin B. E., is a suspension of ground tubercle bacilli containing 5 mg. of the solid tubercle substance to each c.c.

Tuberculin B. E. Bovine is made in the same manner as the foregoing, except that the tubercle bacillus used is of the bovine type.

Tuberculin Old (Tuberculin O. T.), preserved with trikresol in 1 c.c. vials.

Tuberculin O. T. Bovine is made by the same process as the foregoing, except that the organism used is of the bovine type.

Tuberculin Bouillon Filtrate is preserved with 0.4 per cent. trikresol in 1 c.c. vials.

Tuberculin B. F. Bovine is made in the same manner, except that the bovine type of tubercle bacillus is used.

Tuberculin T. R., Tubercle Residue, is a suspension of 2 mg. of tubercle substance in each c.c. of the finished product.

Tuberculin Ointment (Moro Ointment) is a mixture of 50 per cent. each anhydrous wool fat and Tuberculin O. T., human strain.

Tuberculin for the Thermal Reaction contains in each c.c. 1 mg. Tuberculin O. T. Cutter Laboratory, Berkeley, Cal. (*Jour. A. M. A.*, Nov. 9, 1912, p. 1717).

Afridol, sodium hydroxymercuric toluylate, $C_6H_3(CH_3)$ $(COONa)$ $HgOH$, 2:3:1. It is a white powder which does not respond to ordinary reactions of mercury, the mercury being in a non-ionized form. It is supplied only in the form of Afridol Soap, which contains 4 per cent. afridol. Used as a disinfectant for the hands and instruments and for the treatment of parasitic diseases. Farbenfabriken of Elberfeld Co., New York (*Jour. A. M. A.*, Nov. 23, 1912, p. 1887).

REFORM IN MEDICINES

Incompatibility of Sodium Acid Phosphate and Hexamethylenamin.—It has been found that when hexamethylenamin and sodium acid phosphate (sodium dihydrogen phosphate) are contained in a solution that decomposition gradually takes place. The hexamethylenamin is decomposed with liberation of formaldehyd, the ammonia set free at the same time neutralizes the acidity of the sodium acid phosphate. The same reaction takes place more slowly in the cold. Therefore, the therapeutic effects of the two drugs are practically lost if such a solution is kept for any length of time (*Jour. A. M. A.*, Nov. 2, 1912, p. 1640).

Nostrums and the Medical Profession.—Samuel Hopkins Adams calls attention to an instance of the average practitioner's attitude toward "patent medicines." He states that a newspaper publisher who wanted to exclude all fraudulent or questionable advertising, on submitting an advertisement for Duffy's Malt Whiskey to four physicians for an opinion, was advised that there was no reason why the advertisement should not be accepted. There is no excuse for members of the medical profession to plead either carelessness or ignorance in matters of this sort. It is the business of physicians to be informed on such matters, and they should know that unwarranted and dangerous claims are being made for Duffy's Malt Whisky (*Jour. A. M. A.*, Nov. 2, 1912, p. 1640).

Acetylsalicylic Acid and Aspirin.—Examination reported in German pharmaceutical journals shows that acetylsalicylic acid manufactured by reliable firms is of good quality and equal in every way to that sold under the proprietary name "aspirin." Acetylsalicylic acid is a definite chemical and is the same, no matter who manufactures it. Because of the too great readiness with which patents are granted in the United States and because of the construction of our patent laws it has been possible for the Farbenfabriken of Elberfeld Company, which controls the trademark on the word aspirin, to obtain a patent in the United States on acetylsalicylic acid, thus securing a complete monopoly in this country. In view of the patent grant, which has been upheld by the courts, it is inadvisable to have anything to do with any other brand than that of the patentees (*Jour. A. M. A.*, Nov. 2, 1912, p. 1642).

Aubergier's Syrup of Lactucarium.—Physicians have frequently wondered why they were unable to obtain from the Syrup Lactucarium, U. S. P., the therapeutic results which they were able to obtain from a proprietary product known as Aubergier's Syrup of Lactucarium, sold by Fougera & Co. at an exorbitant price and put on the market in patent-medicine style. With the advent of the Food and Drugs Act the secret of the soporific effect of the Aubergier product was explained—the label on the bottle now declares it to contain morphin. One of the advantages claimed for ready-made prescriptions over the made-to-order variety or even over pharmacopeial preparations, is that they are more elegant in appearance and less offensive to the nostrils and palate. This is the common experience of physicians who, having prescribed some ready-made mixture, wish to change the dose of one of the constituents and write a prescription or ask their pharmacist to prepare a similar preparation. As the proprietary did not have the composition declared on the label, a mixture based on the formula will differ more or less widely from the proprietary it is expected to resemble (*Jour. A. M. A.*, Nov. 9, 1912, p. 1732).

A Shot-Gun Prescription.—A prescription, recently written by a physician in a prominent eastern city, called for the following ingredients: cascara evacuant, strychnin sulphate, sodium bicarbonate, codein sulphate,

caffein citrate, sodium salicylate, solution of potassium citrate, solution of iron and ammonium acetate. It is strange that in the light of our present knowledge, a physician would be guilty of writing such a prescription (*Jour. A. M. A.*, Nov. 9, 1912, p. 1733).

The Gullible Doctor.—Dr. J. E. Reeder, Dyersville, Iowa, deprecates that physicians heed the recommendations for proprietary preparations advanced by ignorant salesmen. It seems as if the average physician could not say "no" to these semi-patent-medicine agents, and this accounts for the number of thrifty proprietary houses which are supported by the "gullible doctor" (*Jour. A. M. A.*, Nov. 9, 1912, p. 1733).

Crippling the Food and Drugs Act.—The discussion of the McCabe-Wilson-Dunlap conspiracy to oust Dr. Wiley from the Bureau of Chemistry showed that the Food and Drugs Act was seriously crippled, both by the inadequacy of the punishment meted out to the violators and the indeterminable delay in bringing cases to trial. Good examples of the law's delay are two recent notices of judgment. One of these was the misbranding of a "walnut oil" by the Mayor Walnut Oil Company, Kansas City, Mo., the offense having been committed in January, 1910, the case finally came to trial in April, 1912, and the public document giving information about this case was not issued until September, 1912. The other is a case of a misbranded hair tonic, Fagret's Hair Tonic, L. Fagret Company, Baltimore, Md., committed in August, 1910, brought to trial in April, 1912, and made public in September, 1912. Both were clear-cut cases of misbranding (*Jour. A. M. A.*, Nov. 16, 1912, pp. 1802 and 1811).

Suggestion and Suicide.—That the suggestive effect of reading details of suicide is a powerful factor in the causation of suicides among susceptible persons is recognized. The suggestion is more likely to have influence if in the account of the suicide some poisonous article commonly found in households, such as phenol, lysol and rough on rats is named as the agent employed by the suicide. In New South Wales newspapers have been asked by the pharmaceutical board not to publish the names of poisons used by suicides, and in several instances they have heeded this request, particularly in connection with lysol poisoning cases, which are numerous in all the states of the commonwealth (*Jour. A. M. A.*, Nov. 23, 1912, p. 1895).

Progress and Reaction.—To the disgrace of the medical profession it must be said that the publishers of lay journals have shown a greater desire to rid their advertising pages of fraudulent medical advertisements than have the publishers of most medical journals. The Pulaski County *Democrat* of Winamac, Ind., explains why it turned down an advertisement for the "consumption cure," Nature's Creation. On the other hand, the Denver *Medical Times* boasts of the fact that the proprietary preparations advertised in the journal are not confined to those that have been accepted by the Council on Pharmacy and Chemistry for inclusion with New and Nonofficial Remedies (*Jour. A. M. A.*, Nov. 23, 1912, p. 1597).

Duffy's Malt Whiskey.—During the Spanish-American War Duffy's Malt Whiskey qualified as a "patent medicine" and paid a special tax that was put on "patent medicines" as a means of raising revenue. Even while the Federal government was declaring it a medicine, the supreme court of the state of New York decided that Duffy's Malt Whiskey was not a medicine, but a liquor, and that persons selling it should be required to hold a liquor license. While chemists had testified that Duffy's Malt Whiskey was nothing but a poor-grade whiskey, the Duffy Malt Whiskey Company in attempting to secure a new trial, submitted evidence that the preparation contained the following drugs: columba, hydrastis, pareira and taraxacum, though nothing was said about the amount of these drugs. The state chemist of North Dakota in 1906 declared that analysis indicated it to be nothing more than neutral spirits, colored and flavored. In 1908 the U. S. government seized a quantity of Duffy's Malt Whiskey on the charge of being adulterated and misbranded under the Food and Drugs Act, but so far the case has not been tried, apparently, because of the political influence of the Duffy Malt Whiskey Company (*Jour. A. M. A.*, Nov. 23, 1912, p. 1905).

Converse Treatment for Epilepsy.—Practically every nostrum on the market sold for the self-treatment of epilepsy contains large quantities of bromids. These are taken by the patient in utter ignorance of their danger and in quantities that no physician with any respect for the patient's safety or his own good name would dare prescribe. Such doses suppress the attacks, but brutalize the patient, and lead to a loss of mental and physical activities. The Converse Treatment for Epilepsy was analyzed by Prof. E. F. Ladd of the North Dakota Agricultural Experiment Station, and found to be an aqueous solution of several bromids containing bromids equivalent to potassium bromid 15.486 per cent., the bromids being present as sodium bromid, potassium bromid, strontium bromid, ammonium bromid and iron bromid (*Jour. A. M. A.*, Nov. 23, 1912, p 1911).

BOOK REVIEWS

Laboratory Methods. With Especial Reference to the Needs of the General Practitioner. By B. G. R. Williams, M.D., Member of Illinois State Medical Association, A. M. A., etc., Assisted by E. G. C. Williams, M.D., Former Pathologist for Northern Michigan Hospital for Insane. With Introduction by Victor C. Vaughan, M.D., L.L.D., Professor of Hygiene and Physiological Chemistry and Dean of the Department of Medicine and Surgery, University of Michigan, Ann Arbor, Mich. Illustrated with 43 engravings. Cloth, pp. 204. Price $2.00. C. V. Mosby Company, St. Louis, 1912.

The plea of this little work on laboratory methods is a wider utilization of this diagnostic aid by the general practitioner. Our chief criticism would be the pecuniary outlay which is deemed sufficient for practical purposes, and the statement that a practical working laboratory can be had for the sum of about five dollars. Such statement seems rather inconsistent when the equipment named as being obtainable for such price does not tally with the later requirements as outlined by the authors. However, there is no question but that every general practitioner could and should make a wider use of laboratory methods, and such a little work acts as a good hand guide for the commoner everyday work.

The Early Papers By W. J. and C. H. Mayo. A collection of Papers (Published Previous to 1909). By William J. Mayo, M.D., and Charles H. Mayo, M.D. Two octavo volumes, averaging 550 pages each, illustrated. Philadelphia and London: W. B. Saunders Company, 1912. Per set, cloth, $10.00 net.

The editor of this work has been prompted in her undertaking by a desire to collect and preserve a complete file of the writings of William J. and Charles H. Mayo from the time of their graduation from medical college to February, 1909, the date of the publication of the first volume of "Collected Papers by the Staff of St. Mary's Hospital." The general plan of classification used in that volume has been retained in the present work with the addition of various subheadings in accord with the diverse character of the writings.

An effort has been made under each classification to preserve a chronologic order in order to bring out the interesting historic points in the progress of general surgery from the early date of 1884 to the present time.

It is decidedly interesting in looking through these two volumes to note the progress along the different lines, both in number of cases and scientific attainment within this clinic. Particularly is this point emphasized at the end of volume II wherein is contained a report of clinic at St. Mary's Hospital Jan. 19, 1891. At that time the clinic consisted of five cases, as follows: Ovariotomy, amputation of hand, nephrotomy, castration, amputation metatarsal. Contrast this with the reports in other parts of the works of series of one and two thousand gall-bladder operations, one thousand operations for goiter, and almost as many prostatectomies, and one immediately gleans some conception of the magnitude of the progress of the St. Mary's clinic.

Throughout these volumes there stands out the terse yet significant descriptions of the Mayo brothers' writings. Neither can ever be accused of the verboseness that characterizes so much of present day literature. As to the data contained within these pages, their value to the medical and surgical world is practically limitless. Gathered as it is from hard work, earnest and careful study, and wonderful perseverance in the attempt to follow through their results, the literature emanating from this clinic must stand as standard data in its field. Every contribution likewise is characterized by a rich bibliography both American and foreign. The publishers as well as the editor are entitled to the everlasting gratitude of the profession, particularly that portion which strives for surgical exactness and consequent progress.

An Introduction to the Study of Infection and Immunity. Including Serum Therapy, Vaccine Therapy, Chemotherapy and Serum Diagnosis. By Charles E. Simon, M.D., Professor of Clinical Pathology and Experimental Medicine, College of Physicians and Surgeons, Baltimore. Octavo, 301 pages; illustrated. Cloth, $3.25 net. Lea & Febiger, Philadelphia and New York, 1912.

This is one of the most important books that have been published within recent years. It deals with the new science of immunology and its application to diagnosis and treatment. The first eleven chapters emphasize the principles that are involved and enable the reader to familiarize himself with the basis on which the new science has been established. The second part of the work deals with the practical application of immunology in treatment and diagnosis.

The various chapters in their order have titles as follows: 1. Introduction (discussion of immunology and infection and infectious diseases). 2. The nature of infection. 3. The defensive forces of the invading microorganism. 4. Bacterial poisons. 5. The defensive forces of the macroorganism. 6. The bactericidal substances of the blood. 7. Antigens and antibodies. 8. The side-chain theory. 9. The different types of immunity. 10. Anaphylaxis. 11. Anaphylaxis in its relation to disease. 12. Active immunization. 13. Passive immunization. 14. Chemotherapy. 15. The application of immunological principles to diagnosis.

The author well says that where actual progress has been made in the treatment of disease such progress has been due not to our therapeutic interference by means of drugs but to a recognition, be it ever so slight, of those factors by which Nature herself, unaided and at the same time unhampered by empirical drug treatment, seeks to accomplish that end. The fact that Nature does not cure all cases may be interpreted as indicating that the means at Nature's command are after all not perfect. So much, however, seems certain that Nature's ways, so far as we have become familiar with them, are the only specific ways along which progress seems possible, and that drug treatment if it ever shall become of value must start from a different basis, and that basis must be a knowledge of the principles which underlie the interaction between the disease producing agent and the affected organism. The study of these forces constitutes the domain of immunology of which in turn modern chemotherapy, serum therapy and vaccine therapy are the logical products.

The study of infection may be regarded as the key note to the entire problem of the infectious diseases. How the infection takes place, how it gives rise to disease, and how the animal body overcomes infection are the most important questions which at present occupy the attention of immunologists the world over, and it is the object of the author's work to present to the practicing physician the more important data which have already been worked out. Every progressive physician must of necessity familiarize himself to a more or less extent with the new science, and with the present comparative scarcity of material on this subject, we can hardly afford to be without this well written and carefully prepared work.

The Practice of Medicine.—A manual for Students and Practitioners. By Hughes Dayton, M.D., formerly of the Cornell University Medical School, New York. New (second) edition, thoroughly revised. 12mo. 326 pages. Cloth $1.00 net. The Medical Epitome Series. Lea & Febiger, Publishers, Philadelphia and New York, 1912.

The principal changes in the second edition of this little work consist of the curtailment of the special subjects and the exclusion of a consideration of the diseases of the nose, pharynx, larynx and tonsils. The same classification, namely that of Osler, has been followed as in the first edition. In the subjects treated the main changes have been necessitated by more recent knowledge acquired concerning infectious, cardiac and constitutional diseases. The little volume is of a handy size and affords a ready epitome of the subjects considered.

Surgical After-Treatment. Second edition, practically rewritten. By L. R. G. Grandon, M.D., Assistant in Surgery at Harvard Medical School, and Albert Ehrenfried, M.D., Assistant in Anatomy at Harvard Medical School. Octavo of 831 pages, with 264 original illustrations. Philadelphia and London: W. B. Saunders Company, 1912. Cloth, $6.00 net; half Morocco, $7.50 net.

The revision of this work was undertaken by the authors both because of the enthusiastic reception afforded the first edition and of their desire to meet the shift of medical opinion and advance of surgical knowledge incident to the intervening time. Some chapters have been either nearly or entirely rewritten, several illustrations have been replaced by better ones and many new ones have been added. As a whole, the book seems somewhat larger and more comprehensive than the first edition, and should be a most excellent guide to house surgeons and those particularly interested in developing post-operative technic. Through-

out the text one finds an occasional radical statement such as the recommendation to put a patient in his chair the second day after a McBurney operation for appendicitis. However, there are many good men adopting just such radical procedures, and it is well to have the ultraconservative off-set occasionally by the more radical. The work is perhaps the best treatise of after-treatment now on the American market, and merits a continuation of the popularity of the first edition.

The Practical Medicine Series. Comprising ten volumes on the Year's Progress in Medicine and Surgery. Under the general editorial charge of Gustavus P. Head, M.D., professor of laryngology and rhinology, Chicago Post-Graduate Medical School, and Charles L. Mix, A.M., M.D., Professor of Physical Diagnosis in the Northwestern University Medical School. Volume 4. Gynecology. Edited by Emilius C. Dudley, A.M., M.D., Professor of Gynecology, Northwestern University Medical School; Gynecologist to St. Luke's and Wesley Hospitals, Chicago, and C. von Bachellé, M.S., M.D., Assistant Professor of Obstetrics, Chicago Policlinic and College of Physicians and Surgeons; Gynecologist to the German Hospital, Chicago. Series 1912. The Year Book Publishers. Cloth pages 228, price $1.25.

The year's progress in gynecology has been quite thoroughly reviewed in the edition under consideration. Many of the articles are abstracted without comment and some rather freely commented upon by the authors. Considering its size, the volume is quite well illustrated and measures up to the full standard of this excellent series.

An Essay on Hasheesh. Including Observations and Experiments. By Victor Robinson, Contributing Editor, Medical Review of Reviews; Pharmaceutical Chemist, Columbia University; Member of the American Chemical Society; Author of "Pathfinders in Medicine." Published by Medical Review of Reviews, New York, 1912. Price 50 cents.

This little essay on a historical drug affords rather delightful reading as well as some very interesting data upon the drug treated. It may be of interest to some readers to know from Mr. Robinson's pen that there never has been a well authenticated death from hasheesh, no matter how large a dose taken. This seems rather strange when one considers the intensity of symptoms produced by an overdose.

Arteriosclerosis. Etiology, Pathology, Diagnosis, Prognosis, Prophylaxis and Treatment, with a special chapter on Blood-Pressure. By Louis M. Warfield, A.B., M.D. Assistant Superintendent and Resident Physician to Milwaukee County Hospital; Assistant Professor of Medicine, Wisconsin College of Physicians and Surgeons, Milwaukee, Wis.; Formerly Medical House Officer, Johns Hopkins Hospital, Baltimore, Maryland. Illustrated with twenty-eight engravings. C. V. Mosby Company, St. Louis, 1912.

The introduction and wide advertisement of numerous instruments for measuring the blood-pressure has done much to popularize the term arteriosclerosis. It is to be feared that the diagnosis is often made without a clear conception of the pathological physiology of the disease, how it is to be treated, and how prevented. Dr. Warfield in this second edition of his monograph approaches the subject of arteriosclerosis from the standpoint of the clinician. He gives the practitioner a working knowledge of the disease.

The additions made necessary by the advances of our knowledge of this disease during the four years since the appearance of the first edition of this book made it practically a new one. The principal changes are found in the chapters on Pathology and Physiology. The chapter on Physiology is especially deserving of consideration as it gives in a plain and simple manner the important facts of the normal physiology of the circulation together with those physical changes produced by arterial and cardiac disease that are capable of being recognized by modern methods of investigation.

The portion of the work on symptoms and physical signs is admirably arranged in two chapters. The first describes the general signs and symptoms of arteriosclerosis, and the second chapter the signs and symptoms that appear when the disease affects the vessels of special organs. In this chapter the author has not attempted to discuss the changes produced by arteriosclerosis in each organ of the body but has wisely confined himself to the following headings: Cardiac, Renal, Abdominal, Cerebral, Spinal, Local Vasomotor Effects, Pulmonary.

The importance of early diagnosis is emphasized. As the author says, "The combination of (1) hypertrophied heart, (2) increased blood-pressure, (3) palpable arteries, and (4) ringing, accentuated second sound at the aortic cartilage is, in reality, the picture of advanced arteriosclerosis. If the individual is in good condition much may be done by judicious advice and treatment to ward off complications and prolong life with a considerable degree of comfort. But we should not wait until such signs are found before making a diagnosis and instituting treatment. As in all forms of chronic disease the early diagnosis is all important."

The broad, well-recognized principles of prophylaxis and treatment are outlined. While quite a number of drugs are mentioned the author confines his recommendations to those with which he has obtained definite favorable results.

The last chapter consists of terse and very practical suggestions. A bibliography ends the book.

The Care of the Skin and Hair. By William Allen Pusey, A.M., M.D. Professor of Dermatology in the University of Illinois. D. Appleton and Company, New York and London, 1912.

This little book was written for the layman. It tells in plain language how one should care for the skin and hair, and what is more important, tells what should not be done in vain attempts to enhance the beauty of these structures. Directions for the care and prevention of the more simple and common disorders of the skin and hair are given. The reading of this little volume certainly cannot foster the mischievious habit of self medication; indeed the reviewer feels that placing it in the hands of a man or more particularly a woman who is solicitous about the care of the skin and hair, would effectively do away with a great deal of useless and sometimes dangerous self treatment. A wider distribution of this kind of information would no doubt prevent some of the unfortunate results that at times occur when people place themselves in the hands of the charlatan. The author's aim to write a book on the hygiene of the skin has been admirably attained and no physician need feel any hesitancy in placing the volume in the hands of a patient.

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